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Addresses.

MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

ADDRESS OF CHAIRMAN.*

LEON L. SOLOMON, A.B., M.D.

LOUISVILLE, KY.

As I appear before you to-day, I am deeply moved by the honor which you conferred upon me one year ago, when you selected me to be your chairman. Then and until now, I have sought to be ever mindful of the obligation which the position brings, and, as in previous years, have held the welfare and continuous advancement of the Section constantly before me. It has been my pleasure to be intimately associated with this Section for several years, during which time I have attended the sessions of none other; for two consecutive terms I served as secretary, and to-day, having a feeling of close affiliation with the work before us, I can appreciate all the more the honor of being your chief executive officer. And just here, let me say, greater good would come, I believe, to the individual sections of the Association, did the men who read papers devote their whole time to a single section. Instead, and it does seem unfortunate, men—among them some of the best—are prone to run diametrically in the opposite direction, and are willing to prepare papers and to read them, and to take part in discussions, oftentimes before several and totally different sections. So far as my acquaintance with scientific members of the profession permits of a judgment, I know few men capable of the production of several essays in one year, the original matter in which shows sufficient research, investigation or observation records to make them worthy of a hearing, before different departments of the Association. In a large medical body like this, the greatest good can only come from individual effort, properly correlated, and so long as the present system prevails certain sections must necessarily remain dwarfs, while others flourish, and viewed as a whole, no department can attain to its fullest success under the present régime.

To correct this evil the following resolution, or a modification of it, is recommended: No member shall be permitted to read a paper before more than one section during any one annual meeting of the American Medical Association. As unfair as such a resolution, on its surface, and at first sight, may appear, I believe the best interests of the individual sections and of the Association as a unit would, in such wise, be subserved. Furthermore, it is recommended that a closer watch be kept over titles and abstracts of papers, in order that such papers be presented to and read before the section to which they properly belong. This would necessitate the enforcement of a resolution which was once offered and recently passed, I believe, compelling authors to send in abstracts of their essays in good time for such proper classification. Papers have been read before this Section, in years gone by, which belonged to the Practice of Medicine Section, and, because of the high standing of the latter, it is not at all uncommon for members to select it, and there read essays, the character of which at once places them in our Section. However, since we have come to occupy a more exalted position, it is a matter which gratifies us to see dignified and distinguished fellows of the Association less frequently guilty of offering this unintentional slight, in favor of our most worthy sister department.

The Section on Materia Medica is one of the youngest in the Association. And, because of its youth, as well as for other reasons directly to be set forth, in its effort to survive, many obstacles have been contended with. When first established, therapeutics did not belong to the Section. It can not be said that the alma mater has failed to manifest an interest in us. However, the many other offsprings had, for the most part, already reached hardy youth, if they had not attained the full vigor of adult life, before the Materia Medica Section came into existence, and their needs, their requirements were greater, their interests seemed to be more conspicuous than ours. Such being the case, we had, and no doubt it was best for us, to work out our own future. What this future was the present now indicates; what it will be in years to come remains yet for us to prove; and if we and our successors dared venture an opinion, basing it upon the accomplishments of the Section during her past, surely there need be no cause for concern. If we but follow in the footsteps and path of the faithful officers and members who preceded us, glowing success can not but surely come. Besides our youth, until very recently there has been a general feeling of distrust, shared largely by the entire profession, in matters pertaining to drugs and other medicinal agents, and especially to drug therapeutics. When we require an explanation for this distrust we see the reason at once in the greater interest which has centered and attached to diagnosis, to pathology, histology, bacteriology, and other laboratory branches during the past several decades. While the study of materia medica and therapeutics lagged, the profession was perfecting itself in other seemingly more important branches, and very few men were devoting their time and interest to the investigation of the actions and uses of drugs. During this time, even the large number of medicinal agents already at our disposal was neglected. Original research and investigation was, for the time being, almost unknown; when men, in past decades, employed a given medicinal article, it was often with an indefinite knowledge of the best preparation of that article to employ, or how that best preparation might be obtained; nor did the prescriber know the certain effect which a given dose of a given drug might be

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expected to afford, to say nothing of the diversified uses to which the drug in varying doses might be put. Powerful weapons in the hands of men who do not know how to use them are inclined to do harm as well as good; besides, they create fear and distrust in the minds of others who might employ them to better effect. Drugs and medicinal agents are the armamentarium of the physician; to him they are what tools are to the mechanic, he must know how to employ these tools, else they serve him poorly. This fear and distrust of drugs became a dislike; men reasoned that the materia medica was a failure, therefore refused to consider it. Under such circumstances it was no wonder that our Section could not gain caste. However, the very causes which gave us our backset—the consideration of the several laboratory branches occupying the professional mind to the exclusion of drugs and drug therapy—when these considerations had once been fairly concluded, paved the way for a better and more wholesome study of this, the loftiest end and highest aim of all medicine. I repeat, my colleagues, the subjects which this Section has the honor and glory to study and consider, the questions upon which these essays of ours are written and upon which expressions of opinion are ventured, the matters which are discussed before this body—all these things belong to the department of medicine, which, as Fothergill has said, represents the highest aim and end, the loftiest attainment of all medicine. Without materia medica, deprived of therapeutics, using this word in its largest sense, what would the science and art of medicine be? The answer is so easy—nothing. The treatment of the sick, the healing of the wounded, the relief from pain and suffering—these things give medicine its great claim and make it the grandest and most divine gift of an all-knowing, all-kind and all-merciful God.

Our materia medica and therapeutics is builded upon the foundation of all the knowledge afforded by the laboratory branches. For its proper construction and appreciation a thorough conception of anatomy, physiology, histology, pathology, bacteriology, botany, mineralogy, pharmacy, chemistry, heat, light, electricity and other allied forces is now-a-days presupposed; and those who would then wield the medicinal agent to its best advantage, accomplishing with it the maximum of good with the minimum of bad, must have also mastered the larger subject of clinical medicine and clinical disease. Indeed, materia medica, and more properly therapeutics, is the "superstructure" builded upon all medicine. I congratulate you, then, gentlemen, upon your affiliation with this Section of the Association. I congratulate you upon being present at this, the fifty-first meeting, and I extend to you a hearty welcome to our proceedings during the next four days. I trust we will have a full attendance. A glance at the names which grace our program and the titles which have been selected by the Fellows who will read papers, to say nothing of the names of the gentlemen who will take part in the discussions, is sufficient to guarantee the success of this meeting. In the name of the Section, I desire to thank these gentlemen for the spirit which characterized their willingness to take part in our proceedings. They have done us an honor and we appreciate the compliment. The thanks of the Section are also due our worthy secretary, by whose diligent efforts, and to whose conscientious and painstaking devotion to all the ardous duties of his office, is due the completeness of the program. And now, gentlemen, in accordance with Section 2 of the by-laws, which says, "The Chairman of each section shall prepare an address on the recent advances in the branches belonging to his section, including suggestions in regard to improvements or methods of work, as he may regard important," etc., I beg your indulgence while I briefly review the several conclusions which the year's work with serum vouches. And by way of explanation, for the selection of such a topic, I would say the preponderance of positive testimony in favor of the usefulness of this class of medicinal substances demands that a closer study be made by investigators, in order that a better understanding of the whole truth be had, than is the case to-day. In the calling of attention to this necessity, and in the stimulation of profounder research, I trust a consideration of this subject by your chairman, this afternoon, will result. The study of certain so-called specific diseases, namely, those where the specific, etiologic factor is known, has, first in the laboratory, and then at the bedside, led to a study of specific medication. There are to be found, on the market to-day, and in more or less general use, the following articles, belonging directly or indirectly to the so-called class of serums or antitoxins: Diptheria antitoxin, tuberculin (old and tuberculin T. R.), antipneumococcus serum, antistreptococcus serum, antirabic serum, toxins of erysipelas and bacillus prodigiosus, yellow-fever serum, and vaccination against smallpox. To a brief consideration of the present status of these, I invite your attention. But, before we undertake their separate consideration, a general word seems proper. Immunity or resistance against intoxication and infection is of two sorts: natural and acquired. Acquired immunity may be active or passive. The production of active immunity consists in the graduated use of dead broth-cultures of poisonous bacteria in the lower animals or fowls. The resultant blood-serum has both antitoxic and anti-infectious (germicidal) qualities. When the immunization is brought about by the use of dead bacteria alone, freed from their adherent toxins, the resultant serum is germicidal only (anti-infectious) but not antitoxic, viz., will not neutralize toxins. In active immunity, we have a perfect example of the *vis medicatrix naturæ*. Passive immunity represents the employment of serum from such actively immunized animals or fowls, which is more or less rich in so-called antitoxic units. A unit of antitoxin is an arbitrary quantity, depending entirely upon the quality and concentration of the serum. In diphtheria, for instance, one unit has been selected to represent the amount of antitoxin which will protect a guinea-pig against one hundred otherwise fatal doses of concentrated diphtheria toxin. Clinical observation has, however, demonstrated that the curative dose of antitoxin must be much larger than the passive immunity dose. Among the theories which have been advanced to explain the action of immunity, "Ehrlich's Side-chain Hypothesis" is now the most generally accepted. Based upon a chemical theory of poisons attacking cells, it applies an accepted biologic principle—that of "functional hypertrophy." Ehrlich assumes that the reaction which follows the application of a bacterial poison, rendering the molecular side-chain functionally useless, results in the production, by the nutritive process within the nucleus of the cell, of an excess of side-chain radicles, and this excess, which is far beyond the immediate needs and requirements of the cell, leaves it, and, in the circulating fluids of the body, is an antitoxin. It must be remembered that certain portions of the body contain cells whose existing side-chain radicles are especially susceptible to the action of a given bacterial poison; thus, for instance, the central nervous system contain cells whose side-chains are susceptible to the ac-

tion of the toxin of the bacillus tetanus; the toxin of diptheria affects the side-chains of bone marrow and of lymph-adenoid tissues. At the same time, it is readily proved that these same susceptible tissues often exert an immediate antagonistic action on bacilli and toxins; for example, place a virulent culture of the bacillus tetanus, containing toxic products, in an emulsion of fresh brain and it will be seen that the toxin is more or less neutralized—another instance of the powerful force of our so-called *vis medicatrix naturæ*.

DIPHTHERIA ANTITOXIN.

The action of this serum is so positive and the consensus of opinion is so nearly identical, regarding its usefulness, that little need be said in a résumé like this, regarding its value. The general rules which can be laid down to-day regarding the serum, are as follows: The more potent grades of antitoxin are superior to the weaker ones. A dose of 2000 or 3000 or 4000 units is advised for a severe case of diphtheria in an adult, or even 4000 for a very severe case in a child past three years of age, to be repeated in twelve hours if necessary, and a third dose—infrequently a fourth dose—is permitted in exceptional cases; 1000 units is employed in a mild case, if seen early, or 2000 in a mild case seen late. Babies under six months of age had best never have over 1500 to 2000 units, but in all cases the character of the disease more than the age regulates the size of the dose. Behring's first statements regarding the immunity from antitoxin are now abundantly proved; namely, it is of little or no value to give even large doses of the serum in severe cases of diphtheria, well advanced. When the side-chains of cells are once overwhelmed by very virile toxins of diphtheria in *great* quantity the nutritive forces within such cells are unable to produce the necessary excess of side-chains to antagonize these toxins; therefore the patient succumbs. The greater success of the antitoxin of diphtheria over other antitoxins or serums for other diseases is due to the fact that all of the chemical poisoning or poisonings, the result of the life-growth and propagation of the bacillus diphtheriæ, are neutralized by the diphtheria antitoxin. The result of a given dose of this antitoxin on the diseased process is considered as about as follows: Symptoms grow less intense, gradually abating; the swelling and congestion lessen, and the local disease does not extend. How unfortunate it is that the same can not be said of tuberculin nor of the antipneumococcus serum. As an immunizing agent, the action of the antitoxin of diphtheria is, if we will except vaccination, without a parallel in the history of medical science. The writer recalls no instance,in his 1895-96 experience in the children's wards of several eleemosynary institutions in Berlin and Vienna, where a single case of diphtheria developed after exposure, providing the immunization dose of antitoxin was administered. Recently, the New York Department of Health published its records of over 6500 children, observed during a period of five years just ended, in whom such perfect immunity had been secured by antitoxin that only in twenty-eight cases did the disease develop, after exposure, and, among these, there were no deaths, we are informed, except one complicated by scarlet fever. Immunity is said to last about two weeks, but it was our custom, in 1895 and 1896 to administer other immunization doses, even within one week, providing a fresh exposure seemed to necessitate it. No harm, as a rule, other than rashes, passing joint inflammations and more or less fever occurred, and these were not permanent. Genuine scarlet-fever rash is sometimes closely simulated by this eruption, and, no doubt, scarlet fever has at times actually complicated, when the serum received the blame for the eruption. It is now attempted by an, as yet arbitrary selection of certain horses to avoid the production of this rash, and some of the laboratories are careful not to dispense serum which experience or experiment has shown will produce a rash —it having been found that certain horses will supply serum capable of provoking an eruption at one time, whereas other serum, obtained from the same animal at another time, has no such effect. These efforts, on the part of the manufacturer, oftentimes necessitating the casting aside of more or less considerable quantities of serum, otherwise very potent, and meaning to him a large pecuniary loss, are, to say the least, very commendable from a humanitarian standpoint. Such losses necessarily render more costly the better serum supplied, but this only demonstrates the wisdom and value of choosing the best, always. Chemical antiseptics, in small quantity, are permissible in a serum, but no serum should be offered for sale over the counter that is as old as six months.

TETANUS SERUM.

In the agent which is supplied us to antidote tetanus we have another seemingly powerful article, which, except for the fact that the latter disease can only be demonstrated after clinical symptoms manifest themselves, and not early in the stage of the disease, would, it is thought, yield a percentage of cures in a measure comparable to diphtheria antitoxin. But by the time clinical symptoms have manifested themselves in tetanus, the accumulated toxins have already brought about, as a rule, much harm in the susceptible side-chains of cells, in the central nervous system. When, if ever the time comes, tetanus shall be diagnosed early, as from the local wound appearances, which may at some future day be considered sufficient to make a diagnosis, then good may be expected from the serum which we are taught now is its complete antidote.

ANTIPNEUMOCOCCUS SERUM.

The germ which causes the disease, pneumonia, is distinctly a producer of septic poison, and the patient who succumbs to pneumonia most frequently dies because of the action of the septic material in the blood exerting its destructive influence on the special center of circulation. The pneumococcus differs from a bacillus, which, like the diphtheria or tetanus micro-organism, produces localized foci of disease from whence toxins are absorbed into the system, the bacillus itself not invading the general circulation and tissues of the body as a rule. Now, the pneumococcus does enter the circulation and it produces general bactericidal, septic poison. To-day, it is almost the consensus of opinion that it devolves upon the leucocytes to deal with this foreigner. The action of leucocytes, under such circumstances, on the pneumococcus, is described as a destructive one by a process of "engulfing," and it is explained, that the power of a given leucocyte to engulf pneumococci is largely increased by the antipneumococcus serum. In this wise, the tendency to intense septic poison is limited. However, the several varieties of serum, as now prepared from the human species, the turkey, the dog or the rabbit, have not, as yet, been found to possess any other merit, except in isolated cases, than this controlling influence on the septicemia. In order to be called genuinely useful, antipneumococcus serum must control the extension of the local process in the lungs, it must shorten the duration of the disease and bring about a prompt crisis. And since these accomplishments can not, as yet, be accredited to the serum

supplied us, we must refuse to give it, in its present unfinished state, the certain place which, by fulfilling requirements, it may some day deserve. To this end, that it may come to meet, if possible, all the requirements of a perfect antagonist and antidote to this dread disease, further investigation and research must be continued.

TUBERCULIN.

Tuberculin, old, and tuberculin T. R., are of undoubted value. As a diagnostic agent, old tuberculin, employed in man as well as animals, has accomplished much. Koch's assistant, Brieger, asserts that failure, with old tuberculin, in the treatment of tuberculosis, may be and no doubt is sometimes due to the carelessness with which cases have been selected for its use. The bacillus tuberculosis manufactures, during its development, several poisons, and, at certain stages in the progress of this development, it is possible to antagonize the existing toxins, in the system, by tuberculin. However, at present, all of the toxins produced by this disease germ are not known, and unfortunately neither old tuberculin nor tuberculin T. R. is the perfect antidote to all of them. In lupus, it is proved now that old tuberculin and tuberculin T. R. are both curative. But, until we have a better knowledge of this particular department of therapeutics, we must consider it still in its experimental stage, and in the management of a selected case of tuberculosis, where either agent is tried, we should not lose sight of the value of foodstuffs and of other reliable medicinal substances to be conjointly employed in our plan of management. Surely, it must be said that an agent like tuberculin is deserving of some place in our materia medica and therapeutics, if, in exceptional cases, it seems to act well. In those, in whom cures are said to have resulted, and where tuberculin, in conjunction with other remedial agents, has been used, it is asserted that the patient remains, as a rule, in better condition than in other so-called cures, where tuberculin has not been used. And just here let me emphasize another valuable feature of such an agent, which, like tuberculin, permits us to feel more confident of a "sure cure" in those cases where the patient no longer shows signs or symptoms of disease. I refer to the propriety of using tuberculin as a diagnostic agent in our so-called cured cases. If no reaction takes place, following the use of tuberculin under such circumstances, we can feel more certain about the safety of the patient, and consider that a real cure has been effected.

ANTIRABIC SERUM.

The "Pasteur preventive inoculations," for rabies, lose their value, if symptoms of the disease have once developed. They are only of service as preventive inoculations—in the modified sense of immunity. Tizzoni and Centani have lauded the influence of their "antirabic serum." But several points in their procedure are open to criticism and lay the effectiveness of their serum open to doubt. Therefore, this antitoxin has not yet found a place, notwithstanding the good reports of the two above-named gentlemen. In their hands, it has been used in conjunction with Pasteur's preventive inoculations and this fact also modifies the seeming value of their "results."

TOXINS OF ERYSIPELAS AND BACILLUS PRODIGIOSUS.

The mixed, unfiltered and very virulent toxins of a culture of streptococcus erysipelatosus and bacillus prodigiosus are being used by several investigators, with undoubted results, in spindle-celled sarcoma. The dose of one-half minim, thrown directly into the tumor, is employed. Dr. Coley has had very satisfactory results in a sufficient number of cases to give to this plan a place. He reports it to be much less useful in the small round-celled tumor and still less in the melanotic.

ANTISTREPTOCOCCUS SERUM.

The consensus of opinion is, that, in genuine streptococcus infection, viz., where not only undoubted clinical symptoms of streptococcus infection exist, but where the germs may be demonstrated, as well in the urine sediment and in the blood as in the wound discharges, little or no good results from the use of the serum. Notwithstanding this fact, it has been employed by some with seemingly encouraging results. Urticaria infrequently follows its administration. The dose of antistreptococcus serum is twenty cubic centimeters.

It is needless for me, in this résumé, and at this time, to add to the already abundant literature on the value of vaccination against smallpox. Besides, time forbids, and I hasten to call your attention to a subject of greater and far more vital interest and importance to the Section than anything else, I believe, which, as your chairman, it is my duty to introduce. And, in offering this subject to you to-day, gentlemen, for your consideration, I am not unmindful of the fact, that in the opinion of some men, and possibly in the opinion of some of those present this afternoon and within hearing, it would be considered both the part of wisdom and of valor, as well as proper and politic, to dispose of the matter best, by at once dropping it and ignoring entirely the source of its origin. This was my intention at one time last year, when first the question arose, and notwithstanding the fact, that the brunt of the attack then fell on me, because I was your chairman, I had decided to pay no attention to the blasphemy and insults heaped upon us, since they came from a source whose private monetary interests were calculated to make them take an unfair and partial view of the situation; and more especially, since those who preferred charges, and very recently have reopened the attack, were entirely *outside* of the profession. I am calling your attention, gentlemen, to the exceptions taken last June, after our adjournment in Columbus, by some of the interests of that institution known as "proprietary medicine." The Section had elected its officers, then, as usual, had appointed delegates to the Pharmacopeial Convention, had appointed its several committees and had transacted other business before it, in a regular, routine way. But it would appear from communications which began to reach my desk soon after that neither the election, the appointments nor the other business transacted was in keeping with the hopes and the wishes or desires of certain manufacturers. The fact that the Section had gone on record a year previous, at the Denver Meeting, and again at the Columbus Meeting had fixed its seal of disapproval on papers exploiting nostrums was seemingly sufficient grounds for the "outsiders" to begin then a secret attack, which more recently they have been audacious enough to wage openly against us. I have letters with me which they have circulated, setting forth from their own standpoint a "strong case." With the contents of these, it seems, you should be made familiar. I shall place them here on the table, for your perusal, and you can then deal with the matter as your judgment directs. However, as your chairman, and being in possession of all the facts, I feel it my particular duty in advance to deny, for the Section, the truthfulness of these statements and accusations. It is not necessary for me to assure members of this Section that there is not now nor has there been, at least for the past several years,

any foundation for the belief and the rumor that the Section would be "controlled" by those "allied" with any trade interests. The Section is officered now, I trust it may be said, and no doubt will continue to be in the future, by those who have the lofty interests of scientific medicine at heart. Such was not the case at one time, when the Materia Medica Section of the American Medical Association was the instrument of commercial interests and the organ of such of the proprietary medicine trade as was able to control it. Finally, gentlemen, I commend for your action not only the consideration of this subject, but also refer you to the other recommendations made, and have reason to feel assured that the Section will express, in no unmistakable terms, its feelings, by the course which it will pursue and by the policy which the future will see it develop.

SECTION ON OPHTHALMOLOGY.

ADDRESS OF THE CHAIRMAN.*

H. V. WÜRDEMANN, M. D.

MILWAUKEE, WIS.

The Chairman of the Section on Ophthalmology has but little to say this session, beyond welcoming you to the meeting and making some comments upon the program and plans prepared for our deliberations.

The officers have adhered strictly to the instructions given by the last session, having accepted the prescribed forty papers from the considerable number offered. It seems to me that this plan of procedure, involving as it does a careful selection, while it makes the duties of your officers more onerous, will give the most satisfactory program. We are the representative body of American ophthalmologists, and should not waste our time by unprofitable discussions or on definitely decided diseases or methods of treatment. Our deliberations should be *fin de siècle* and upon new or unsettled subjects, the results of original research. Opportunity is afforded at this meeting for the establishment of the authoritative opinions of American ophthalmologists upon two subjects connected directly with the manufacturing and transportation interests, and for forming a precedent which will sooner or later be brought up in our courts of law.

This plan of program formation and conduction for a medical meeting of this character is the culmination of a long-cherished idea. Three years ago I drew up a series of resolutions for the government of the program committee of the Wisconsin State Medical Society, and as chairman of that committee for the ensuing year had the satisfaction of seeing the number of papers reduced 50 per cent., while their character was increased by a like ratio, and our meeting rendered infinitely more profitable.

From this, or a similar germ, grew the suggestions made in the address of our esteemed presiding officer of last year, from which the seeds are spreading to other sections and to other societies. The method of limitation has thus far proved successful and time will surely show its practical value.

The suggestions of my predecessor, which met with approval by the Section, have been generally adopted by the present officers. There has been arranged one symposium for each day, with stated discussion, after which the subject will be opened for general debate. Those on the relations of visual defects to vocations; on the amount of injury to the business capacity of the individual from eye defects; on the absorption of ocular exudates, may be considered most pertinent and timely. It is very necessary in this country of vast railroad interests that there should be some uniform standard of visual acuity and ocular health established, by which the great corporations, who are responsible for the lives of each one of us for an average of several days in the year, should be able to select reliable employees.

The time has come when the public demands the utmost safeguards; and corporations have found that their efficiency has not only been increased, but vast sums of money saved, through a proper medical, and more particularly ocular, inspection of prospective employees. The damage to the individual from eye accidents is of great medicolegal interest, and a certain precedent for its estimation may perhaps be reached through our discussion of the subject.

The other papers offered seem to be of present interest and to surpass many of those of previous sessions. This is an evidence of material progress and should be deeply gratifying to all members of the American Medical Association, and to the Section on Ophthalmology in particular.

*Presented to the Section on Ophthalmology, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

THE MEDICAL PROFESSION.

THE NECESSITY OF AND BENEFITS FROM ITS MORE COMPLETE ORGANIZATION.*

J. C. BIERWIRTH, M.D.

BROOKLYN, N. Y.

In selecting a subject for this address, it seemed to the writer that we might, with profit, turn aside from the well-beaten path of science, and consider briefly what necessity exists for, and what benefits may be derived from, more thoroughly organizing our profession. Recent events concerning this association have pointed out the directions in which we must look for improvements. We need not search very long, nor look very far, for there are many fields, almost barren now, but capable of the highest cultivation and holding out promises of the richest harvest.

Let us pause for a moment and look about us to see what other men, in all the other walks of life, are doing to protect their mutual interests. During the past twenty or thirty years, all professions, except the medical, have organized for mutual benefit. If these organizations had not been needed, or had not accomplished the purpose for which they had been formed, they would have ceased to exist.

Furthermore, these organizations were not made for pecuniary benefit only, but also to protect their members against unjust clients, to protect them when attacked and to aid them and their families in sickness and in death. That the results of this alliance have been more than satisfactory no one will deny. The professional men and women are better paid, and their rights are respected now, where formerly they were not, all of which has resulted in greater self-respect and bettered conditions in all directions.

Let us see how the medical profession compares with other professions in point of organization for mutual benefit. There is no lack of medical societies, "for the advancement of medical science and the maintenance of public health," but how many societies are there in this state, or in the United States, which go farther

*President's address, delivered before the Sixteenth Annual Meeting of the Fifth District Branch, New York State Medical Association, May 22, 1900.

than this, which will protect their members against injustice and threatened losses of whatever nature? Not one, I venture to say. What is the reason for this? No one, I think, will deny the necessity for such an organization, and yet we have been going on, year after year, suffering indignities and losses without ever attempting to correct the existing evils.

One of the main reasons for this is a lack of proper organization. There are too many medical societies in this state. The multiplication must of necessity increase the difficulties of closer organization, because it divides the interests instead of consolidating them, and makes it harder for the members to concentrate their energies for the common good. I do not wish to be understood as not favoring special and local societies; on the contrary, what I do wish to emphasize is that all members of our profession should unite their efforts to make the representative society of this state the center of their energies for the common welfare of the profession and public at large. If this is done, as I hope it will be, then we may soon see the time when the existing evils will disappear.

What are these evils by which we are beset? They are many and have been too long endured. First of all, is the lack of respect of the public for our profession, as shown by the constantly increasing number of malpractice suits without adequate cause.

Do you suppose that our State Legislature would oppose any measure which was sanctioned by the New York State Medical Association, representing, say, 10,000 physicians of this state; or that any individual would have the courage to sue his physician unjustly for malpractice, if the lattter's cause were defended by the medical associations of this state?

I doubt it very much. The experience of this association at Albany in regard to the legislative matters has always been that the legislature is ready, at all times, to grant proper relief if there is no factional opposition. It is a well-known fact that suits for malpractice are of almost daily occurrence, and, without doubt, more than 90 per cent. are for inadequate cause, and for blackmail only. It is too well known among a certain class of individuals, as well as among a certain class of lawyers, that doctors are an easy prey. They are sensitive, also, to their reputation, which must always suffer from suits of this kind; they abhor publicity, and are only too glad to compromise to prevent this and save trouble. But what a different state of affairs would exist if every unjust suit for malpractice were defended by our State Medical Association and if the people knew that they have to deal with a powerful society instead of a weak individual.

Another crying evil to be remedied is the indignity heaped upon a number of physicians every year, by having to suffer unjust arrest for a supposed criminal abortion. The occurrence of the past year, where two physicians were arrested for a case of this kind through the stupidity of a police official, is still fresh on the memory of every one. They were entirely innocent of the charge and had attended the woman as a charity patient because she was in need of medical aid. Such cases as this one should be resented by every medical man in the state and country, and we should see to it that repetitions of this kind are made impossible. If a law to effect this end is needed, it should be obtained without delay. If the officials know that to arrest a physician unjustly for a supposed complicity in an abortion case may be fraught with the gravest consequences for them, if they know that the medical association of the state will protect its members to the utmost against such outrages, then they will think twice before proceeding, and they will require more than vague suspicions or stupid deductions from the facts at hand before resorting to arrest.

The much-discussed abuse of medical charities is another evil which has existed too long, and which, it is to be hoped will be speedily remedied by the "Dispensary Bill," enacted last year through the efforts of this association. This dispensary evil had assumed such vast proportions that it threatened to seriously affect our profession.

Another evil which flourishes and needs speedy correction is the lodge or association doctor, who makes a yearly contract to treat the members of an organization for a few dollars a year. He can not do good work, because his work is cheapened and he has to work harder and faster in order to make both ends meet; and the patient is the sufferer.

The members of the council of this association, having recognized the need for correcting the existing evils, came to the conclusion that this could be done only by first organizing the profession of this state into a more harmonious whole, and that in order to be able to do this successfully more legal recognition was necessary. An endeavor was therefore made to obtain from the legislature of this state a charter which would confer all the requisite power. After a great deal of hard work on the part of our committee on legislation, especially its chairman, Dr. E. Eliot Harris, and also the different members of the council, our efforts were crowned with success, and we were granted, on April 14, of this year, a charter which will enable us to carry to a successful end all the proposed improvements in our association. This charter is the foundation upon which we may build a structure of any magnitude, without fear of overburdening its carrying capacity; but the erection of this building should be slow and deliberate and should be wisely superintended, lest we commit errors in construction which it may be difficult or impossible to correct later on.

One of its provisions is to the effect that the New York State Medical Association may form district branches and county associations. This forms the real foundation for its construction, upon which the superstructure may safely rest. By virtue of this provision, all members of the county associations become members of the state body, and thus increase its membership materially. The county associations of New York and Kings have already ratified the action of the council of the state association, and have added thereby to its membership about seven hundred members. It is purposed that each county in this state shall have its association, and these different county bodies be grouped under the now existing five branches of the state association. Each county and branch will then have its pro rata representation in the governing body of the parent association. It will thus be seen that each county will be represented with full voting power in all matters pertaining to the welfare of the association and its members. Believing in home rule to the fullest extent, it is thought best to have all members admitted to the association through the county bodies, because applicants for membership are best known in their own communities and their fitness for membership can be best determined there. It is further purposed to protect all members against unjust malpractice suits. If a member is sued, a committee, together with the counsel of the association, will investigate the facts in the

V. 3
190

case, and if convinced of the member's innnocence, the association will carry the case to its end, and will not compromise. Another protection which this association hopes to be able to afford its members will be in cases of arrest for supposed complicity in abortion cases. One case, fought to the bitter end with all the power and resources of our state association, will be sufficient to prevent many repetitions in the future. Let it be known that any one who assails the honor and dignity of a member of the New York State Medical Association assails the honor and dignity of all its members, and that all will rise in a body for the protection of their fellow, provided he is in the right. The creation of a death-benefit fund for the dependents of its members is another important feature in our new charter. There should be no difficulty in making this successful in every way. The details for it can not at present be outlined; they require much thought and care in their arrangement. But its success is assured if all members will lend their help and work for it. It should be no difficult matter to so arrange the finances of our association that we are able to pay to the family of each deceased member a sum of money that will insure to them all freedom from immediate want. What that sum will be is at present impossible to say.

Another advantage to the members of this association is the "Medical Directory of New York, New Jersey and Connecticut." It is a revival of the old "green book," published for many years by the late Dr. William T. White, under the auspices of the New York Medico-Historical Society, and now published by the New York State Medical Association. The first volume was issued in 1899, and the volume for this year is well under way and will be ready for distribution some time in August. Every member of this association receives a copy free of charge. The labor and care necessary for publishing this work has been stupendous and can not be estimated by any one unacquainted with its details; it would have been impossible, had it not been for the unselfish devotion of a few of our members, who were willing to give much of their valuable time, as well as money, for a good cause, and without expectation of personal gain. In order to make the directory as perfect as possible, the committee on publication need the aid of all the members of this association. Every one should keep a record of all the mistakes he finds, and promptly send them to the secretary of the committee for correction in the next issue; every one should encourage the advertisers by patronizing them, when possible, or by telling them that he has been pleased to have seen their advertisement in the directory. To obtain advertisements is hard work, and the financial success of the book is largely dependent upon them. The members can further aid by seeing that the book is in the hands of all who should have it, such as hotels, druggists, newspaper offices, etc., by asking for it, and if it is not at hand, offering to sell it.

In the foregoing I have endeavored to enumerate briefly the existing evils, to point out the ways and means for their remedy, and to outline the plan of the Council of this Association for a closer organization of its members. Our endeavor must be to produce an association of which all shall be proud, and in which membership shall be an honor, coveted by all! If every one will do his duty and give his aid, success is assured beyond a doubt, but all must be willing to set aside personal strife and personal differences for the common welfare of all. When we stand shoulder to shoulder, and present a solid front, none dare to assail us, and our friends will respect us. It is to be hoped that the example to be set by our State Medical Association will be followed by every other state medical association, and that the spirit of closer organization will pervade all state societies. It should then be the endeavor of the delegates to the American Medical Association to infuse this spirit into that body, and to produce a national association which shall be second to none and which shall have a controlling influence in all national affairs pertaining to public health and the science of medicine.

137 Montague St.

Original Articles.

THE TREATMENT OF ACUTE ALCOHOLISM BY LARGE DOSES OF DIGITALIS.*

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Suggestions for the use of large doses of digitalis in the treatment of acute alcoholism came from Sweden and England. Fothergill and Jones, of Jersey, England, were the first to introduce its use to the medical profession. Both recommended it very highly. The latter publishes a report of over seventy cases treated by this method alone. He claims that he never saw any alarming symptoms following the use of one-half ounce doses of the tincture. A few clinicians in this country have tried the remedy with varying success; among them Dr. Horatio C. Wood, of Philadelphia, who speaks highly of its effect in a certain class of cases. It is interesting to note that a drug whose use even in moderately large doses is supposed to be fraught with some danger, can be given in one-half ounce doses without producing any of the ordinary symptoms of digitalis poisoning. Various explanations have been offered to account for the tolerance of these enormous doses. Wood believes that its explanation lies in the fact that the heart has become by long habit very much benumbed to the influence of stimulants, and explains the narcotic effect of the drug by the fact that the rest and sleep which follow its use are not the result of the cardiac stimulation, but are principally due to the increased flow of blood to the nerve-centers. Others have explained the effect to the digitalis controlling the arteries and compared its action to that of ergot in hemorrhage.

All investigators agree that in acute alcoholism there is singular tolerance of this remedy and the majority believe that it can be used in these large doses with but little danger. Ringer, in an extensive discussion of the subject, recommends it highly and closes his article with these words: "It remains to ascertain the form of the diseases amenable to digitalis."

While this remedy has been used quite extensively in England it has had no extensive trial, so far as I am able to ascertain, in this country. During the past spring, while on duty as attending physician to the alcoholic wards of Bellevue Hospital, I used the tincture of digitalis in one-half ounce doses in a series of ten cases of acute alcoholism. These were selected so as to include different classes of individuals—the strong and the robust, the weak and the anemic, the young and the old; those with nephritis and those with surgical complications. In treatment of those of delirium tremens a routine practice was followed. They were ordered one-half ounce of tincture of digitalis, to be given every

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four hours for three doses. If the patient became quiet and the delirium disappeared the remedy was stopped before the third dose. If not, another series of three doses six hours apart was ordered.

In the cases that showed the best results not more than three doses were necessary. The guide to the repetition of the dose was its narcotic effect. No marked dropping of the pulse was noted in any of the cases, but in the successful ones the pulse was seen to be increased in force, and to become fuller, stronger, and more regular after the first dose. The cold clammy perspiration disappeared, the skin became warmer, and the patient went to sleep. No effect of the remedy was noticed on the kidneys as shown by the usual secretion of urine.

In only three cases of the ten was the result so pronounced and so quick that there seems to be no question that it was entirely due to the effect of the digitalis. In some of the cases the remedy was an absolute failure. Two died; in both autopsies were made. In one no lesion was found beyond the wet brain of acute alcoholism. In the other case, which died in convulsions, besides edema of the brain, petechial hemorrhages were found beneath the endocardium. I have always felt that possibly in this case the digitalis had something to do with the cause of death, although it was a desperate case complicated by acute articular rheumatism. Still the man was a robust individual 30 years of age.

The following case is one of those in which the digitalis shows its most beneficial effects: A young man, well nourished, robust, 22 years of age, entered the alcoholic wards late one afternoon, showing all the symptoms of a severe delirium tremens of two days' standing; temperature 101, pulse 102, respiration 24. He was ordered during the first night one-half ounce of tincture of digitalis at nine, one, and five. He slept none during the night and had to be restrained. The next morning at 9 o'clock the temperature fell to 99.5, pulse 100 and respiration 24. The patient became quiet, delirium disappeared and he went to sleep. He slept all that day with the exception of about three hours, when he had to be restrained. He received no more digitalis, and during the next night his sleep was unbroken. The following day he was perfectly rational, and in the afternoon left the hospital. Ordinarily such cases, even under the best treatment, are not discharged before three or four days.

The second of the successful cases was a man of robust build, 32 years of age, who entered the ward with alcoholic delusions. After twenty-four hours he developed delirium tremens and had to be restrained. In twenty-four hours more the ordinary treatment of narcotics was followed, with no effect—temperature 103.2; pulse 108, respiration 30. He was put on tincture of digitalis, half-ounce doses every four hours. After four doses his temperature was 99.4; pulse 106; respiration 24, and he was quieter but still delirious. A second series of three half-ounce doses of digitalis, each four hours apart, was ordered. After the second dose the patient went to sleep and slept almost continuously for twenty-four hours. He left the hospital the following day.

It is needless to report the other cases in detail, but as a result of studying the carefully kept records of these cases and from my personal experience in the use of the drug a year ago in six cases, I would state the following as my conclusions:

1. The indiscriminate use of large doses, half-ounce, of digitalis in acute alcoholism, is fraught with danger. 2. The cases in which it should be given are the strong, robust, those in early life, with no complications, and those with violent delirium. In these cases the result, I believe, will be exceptionally favorable. They become quiet, go to sleep with a certainty and promptness that is obtained by no other methods with which I am familiar. 3. If after three doses no narcotic effect is noted, I would not advise a continuance of the remedy. I believe in the above class of cases it can be used with perfect safety for a limited number of doses. 4. The failures among my cases were in the chronic alcoholic subjects, in those in middle and advanced life, in the anemic, and in those with bad nutrition. 5. One fact noted which showed marked results from the treatment was that when the patients recovered and awoke from their sleep they were in such good condition that they were able to leave the hospital at once. This is an unusual experience, as ordinarily convalescence is delayed for two or three days.

NOTE.—I am indebted to my house physician, Dr. Metcalf Polk, for assistance in obtaining the above information.

DISCUSSION.

DR. O. T. OSBORNE.—It is a question whether such large doses of digitalis are entirely safe in all cases of acute alcoholism. I think that we ought to be very skeptical about adopting the doctrine that the action of a drug is so very different at one time from what it is at another. The condition is probably such that the drug is not absorbed.

The absence of the usual effects following the administration of these large doses of tincture of digitalis may be explained by assuming that the condition of the patient, suffering with acute alcoholism, is one resembling shock, for instance, in which absorption does not take place from the stomach, or is greatly impaired.

NEW SOURCES OF DANGER IN THE USE OF OPIUM.*

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In a paper read last year at Columbus, on the use of opium in infancy and the effects in adult life, some serious injuries following its use were pointed out. It was shown that both the brain and the nervous system suffered from retarded and perverted growths and other derangements which continued in after life that were clearly due to the early use of opium. In this paper I wish to carry the study farther and to point out some new states of degeneration which have not been noticed before. In my former paper it was stated that opium in any of its forms, given for any length of time, not only weakens the nervous system, but predisposes it to functional and organic diseases marked by a craving for drugs and narcotics. I shall attempt to show that opium used under certain conditions produces a diathesis and a tendency which may be dormant for a long time and then break out into opium addiction from the application of some special exciting cause.

It is a common observation that the effects of opium differ widely in different persons. It is usually given for neuralgias, spasmodic disturbances, and common fluxes. Its effects change not only with the size of the dose, but with some physiologic receptive or repelling power in the organism. In one instance its narcotic action is prompt and soothing; in another it is first a stimulant, then a depressant, and later an irritant; or it may produce nausea at first and a depressant action

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V.3
190

after. Its narcotic effects are at times transient, uncertain or cumulative. In some instances, several doses are given before its effects are noticed, then a cumulative action of all seems to concentrate in profound narcotism. In certain cases the effects are not marked for many hours; in others they continue for a long time, wearing away by slow degrees. These are supposed to be due to idiosyncrasies, and indicate degrees of susceptibility to or immunity from the poisonous states caused by the drug. They also show some repellant or receptive power to its effects within the body. In a clinical study of opium inebriates examples are seen in which opium or some of its preparations have been given for medicinal effect years before the addiction began. Used for a specific purpose under the care of a physician, it was stopped when the necessity ceased, without any indication that it would be used again. Years afterward it was suddenly taken up without apparent cause, and continued as an addiction. Some exciting causes appear to have aroused a craving for narcotics which in some way dated back to their early use. A predisposition or diathesis was created which remained latent in the system and broke out only on the application of some peculiar exciting causes. The following illustrative examples bring out the clinical history of such cases.

EXAMPLE 1.—A merchant in good health up to the time of an attack of influenza was given a small quantity of opium daily for two weeks. He fully recovered from the influenza, but began to use opium secretly. Two years after, he threw off all restraint and used it boldly in large quantities. Coming under my care, I found that opium had been used twenty years before for a chronic diarrhea following a term of service in the Civil War. He was given opium pills daily for nearly two months; then recovered. Four years later some obscure neuralgias of the bowels caused him to use opium again. He recovered from both of these attacks, having no craving for the opium or difficulty in stopping its use. In these instances the action of opium was pleasing and the narcotism profound and without any unpleasant impression. The opium was stopped on the recovery of the patient. A few months later he began to use it again, and came under treatment, and in a few months was discharged restored. Relapse followed the next year, and he is now a chronic case in which final recovery is doubtful. In this case there was no history of heredity or of neurotic conditions which would predispose the use of the drug. The use of opium for the chronic diarrhea impressed the organism, creating a diathesis which called for its use from the slightest exciting causes.

EXAMPLE 2.—A young married woman found in opium a complete relief from the nausea and vomiting which accompanied pregnancy. The opium was continued, and after the death of the child, increased to large quantities daily. She was treated in various asylums and sanitaria, and after each restoration invariably relapsed. Finally she went to an insane asylum, and died demented. In the history of this woman it was stated that at 13 years of age she was treated for neuralgia and exhaustion. This was supposed to have come from intensely active school life and ambition to keep at the head of her class. She was insomniac and intensely neuralgic. The menstrual period began about this time, and morphia was given with pleasing effects for nearly two months, after which it was abandoned. She fully recovered, and did not know the character of the drug she had taken. She continued well for seven years, not using any form of opium or narcotic. Finally the vomiting of pregnancy occurred, which was treated with opium. The early use of opium was clearly the predisposing cause of its later use. There was no mental influence in this, because of ignorance of the name and nature of the drug given at first. The system seemed to respond with absorbing fascination for opium, and the relief which it brought was so pleasing that it could not be abandoned. It is doubtful whether this effect would have followed had not opium been used long before, the system being thus prepared for it.

EXAMPLE 3.—A lawyer, temperate and healthy, 54 years of age, suffered from a fractured ankle, in which both bones and nerves were injured. The pain was relieved promptly by morphia, which was continued for several months, and withdrawn with the healing of the wound. No addiction or injury followed. Six years afterward, from the depression and grief caused by death in his family, he secretly purchased a needle and again began to use morphia. This was continued for two years; then he came under my care for treatment. He recovered and relapsed within a few months, and is now a morphinomaniac. There was no history of heredity, and no previous addiction to the drug before the time of injury. The use of morphia at the time of injury produced a permanent impression upon the organism, which broke out later in the form of secret addiction.

In these three cases, opium seems to have had a peculiarly pleasing narcotic effect, particularly on the pain centers, with no depression or irritation afterward. For purposes of comparison, the following are noted as cases exhibiting different phases of sensitiveness from the use of opium.

EXAMPLE 4.—A rugged, healthy farmer, after exposure to the weather, was attacked with severe pain and high fever. Morphia was used. Its effects were those of an extreme excitant for an hour or so; then an ill-defined stupor, followed by nausea and increased fever. Opium in various forms was given with the same results. The excited stage never fully passed away, and the depressed stage was short and uncertain. He recovered, and a few years afterward, when ill, seemed to have an intense dread lest opium should be given as a medicine.

EXAMPLE 5.—A mechanic, suffering from an attack of acute rheumatism, was given opium. The narcotism was rapid and profound, but was followed by a period of intense irritation of the stomach, which lasted several days. The rheumatism subsided, but the impression of the effects of opium produced a sickening, repellant sensation on his mind ever after.

Many neurotic affections and inflammatory states are relieved by opium, the first effect of which is that of a narcotic, then a stimulant and irritant. It is this stimulant action which is so fascinating to the alcoholic. When it is not followed by irritation of the stomach and nausea, the use of spirits is abandoned for that of opium. The pleasing narcotism makes so profound an impression as to overcome all the irritation and bad feelings; hence alcoholics use opium to escape the gastric and other irritations following the use of spirits. Apomorphia, now given to check the desire for spirits, is noted for its nauseating and irritant effect, followed by depression and narcotism. The relaxation and depression from apomorphia is intensified by the taking of spirits, and is followed by great discomfort and repugnance for the taste and effects of spirits. These marked poison effects are usually transient, although the impression may be so pronounced that some change takes place in the system, apparent afterward in opium or spirit addiction or some other neurotic state. The nar-

cotic stage is often permanent in its impression on the organism, and the irritant effects are transient and soon forgotten. In a case under my care an excessive user of spirits turned to morphia for relief from the delirium and other conditions which followed the use of alcohol. After the narcotic stage passed, intense irritation of the stomach, with mental depression, appeared. These caused a recourse to spirits again. He finally returned to morphia, under the impression that a withdrawal would cause his death.

In many instances, when opium is taken in a prescription or alone for some chronic condition, poison-states follow, not recognized as due to this cause. Some of these symptoms are noted in headaches, sensory troubles, local palsies, depression of spirits and other emotional changes. In one case the withdrawal of opium in a prescription for bronchitis was followed by the disappearance of marked muscular prostration. In another instance sensory troubles and digestive disturbances passed away when the opium was removed. The use of any form of opium should be watched with care and abandoned at the earliest moment when the effects sought for are obtained. The poison-effects in extreme nausea, in some cases, leave a permanent impression and a peculiar sensitiveness to this and other drugs, which may continue for years. In some young persons who have suffered in this way, intense mental and organic aversion is apparent whenever it is used again. The size of the dose may not make much difference. This sensitiveness and extreme susceptibility is often manifest in both narcotism and irritations from the use of the drug. This may be overcome by persistent use, and some instances of addiction have had an early preliminary period of repugnance for it. There is always a degree of exhaustion following the use of opium, especially when it acts as a stimulant and irritant to the nerve-centers. In some instances the transient excitement following its use is noted by great mental activity and freedom of thought. This is supposed to be mental stimulation; in reality it is irritation and delirium, and is always a dangerous symptom. It is this which is sought by the alcoholic, to relieve the depressing effects of spirits. In this the brain is often permanently disturbed and extreme states of exaltation and depression break up the stability of the nerve-centers, as well as the power of control.

When opium has been used with pleasing effects, then long afterward taken up again, there is a psychic effect not seen in other cases. A tendency to secrecy and concealment is marked, with denial of all use of the drug. The quantity used will be misstated, and the efforts to secure it and to provide for an emergency will be strange and unusual. In such cases the danger of poisoning and fatal results from an overdose is very small. The danger-line seems to be overcome and the poison-limit rarely reached. When opium is followed by irritation and nausea with sudden narcotism and pronounced poison-effects there is danger of fatal results. Often large doses are followed by progressive stupor, which continues to final collapse. Here there seems to be no resisting power, the action of opium pervades the entire system like the exhaustion which precedes sleep. The use of opium in which no organic changes or special perversions of the functional activities are apparent is a strong indication of a diathesis and physiologic predisposition difficult to overcome.

Another source of danger has attracted but little attention. It is the effect of opium on fetal life and growth. Many instances are reported of children born of mothers who used opium during pregnancy, which at birth showed defective organisms, low vitality and marks of anemia. The nervous system was imperfectly developed and hypersensitive, the child crying continuously, and only securing relief from the use of opium. I have recorded several instances in which the excessive irritability of infants was only overcome by opium. Most of these died early from exhaustion and acute diseases. Many observations sustain the assertion that alcohol or opium used by the mother both perverts and retards organic growth of the child. Some very interesting facts have been noted by Nicloux, in *La Semaine Médicale*. As a rule, all children born of opium mothers die early, but are not observed very thoroughly.

Probably there is no article in the materia medica more commonly used or more valuable than opium and its preparations. Yet its effect on the nerve-centers, on nutrition and organic growth is very largely an unknown field of study. The facts I wish to make prominent are: 1. The use of opium continuously for any possible purpose is dangerous in that it may impress the organism in some unknown way and leave a diathesis and susceptibility to resort to it again in after life. 2. The condition called opium addiction, in which the drug is used for its narcotic and pleasing effects, is one of organic disease whose origin is preventable by a study of the conditions and peculiarities of the person in early life. 3. Where opium is used with but little, if any, irritant effects, there exists a predisposition to its continuous use and the development of an addiction. 4. When its poisonous effects are marked in the irritations and exaltations which follow its use there is great danger of organic changes and diseases with fatal results. 5. The psychic element in these cases furnishes very suggestive hints of the derangements which follow the mental perversions and disturbances of reason and judgment, and gives some idea of the profound organic changes which take place.

DISCUSSION.

DR. J. M. ALLEN, Liberty, Mo.—Having been impressed with the importance of the subject presented by Dr. Crothers, early in my professional career, I have exercised great care in prescribing opiates, fearing their baneful influences, and am happy to say I have never had an opiate habitué as the result of my treatment.

In many instances I have noted the tendency of patients to a fondness for this remedy, and have had some trouble in having them discontinue its use. In after-treatment of acute disease with them, I have been very careful to disguise the opiate, and never let them know they are taking it. In all cases where there is a tendency to become addicted to opium, either in children or adults, I have been able to trace a hereditary tendency in the parent to indulgence in alcoholic stimulants. It is a well-established fact that alcoholic heredity may skip one generation and appear in the next. I have had three examples of this. The relations of alcoholic heredity producing an abnormal condition of the nerve-centers in which some of the offspring have a fondness for narcotics, I have observed frequently.

I can safely say that all of the narcotic habitués that have come under my observation had for their ancestors fathers and mothers who were addicted to the use of alcoholic stimulants. In support of this, I give a history of one family: A prominent citizen, whose family history was the free use of alcoholic stimulants; he was what would be called a moderate drinker, but drank daily; a very robust man mentally and physically; he had an acute painful illness; the physician was compelled to give opiates. I saw him in consultation at the end of twenty days, and was astonished at the large amount of opium he had been taking. The physician in attendance told me that he recognized that opiates were not now needed, but that the patient demanded and would have it.

We had a patient, an opium habitué produced in thirty days, who had to be treated for same. He recovered and had his physician pledge him never to give him another grain. This gentleman's family of six children had an intense fondness for the effects of opiates. Several of them told me so great was their fear, knowing their fondness for opium, that they never wished me, or any other physician, to prescribe it, no matter how much pain they might be suffering.

In conclusion, I desire to enter my protest against the unnecessary use of the hypodermic syringe in giving opiates, because of their being more seductive in that form than when given by the mouth.

DR. WARREN B. HILL, Milwaukee—Too much importance can not be placed on the views entertained by the reader of the paper. There is a theory in regard to the action of narcotics, which has not been demonstrated, but which is so reasonable that one can believe it. It is that by the action on the human body a tolerance is brought about, just as immunity from infection, through the formation of certain toxins, owing to the stimulation of the cells. In this way patients become gradually able to take very large doses of the drug, owing to the protection of the system by the development of their toxins, the presence of which prevents the usual effects from being produced. Therefore, when we constantly give increasing doses of morphin, its antitoxin is formed and a tolerance is established but if the morphin be suddenly stopped, the antitoxin in the system causes irritation and disturbances of the nervous system and demands a continuance of the drug for its relief. Another point; if we could only find out just how much opium the patient actually needs to overcome the condition for which we prescribe it, we could in many cases avoid the dangers of overdoses, and prevent the formation of a habit, but we can not do this and consequently frequently give an overdose, and this tends to create a demand for it in the system. This is more likely to occur with children; therefore, as the lecturer has shown, there is greater danger from opium in children than in adults. There is another and very important consideration—it is that if a man acquires an immunity against any drug he runs the risk of transferring the immunity to his descendants. Therefore, when we give opium, especially to children, there is a danger of forming this condition, which is capable of being transmitted to descendants of the patient.

DR. T. B. GREENLEY, Meadow Lawn, Ky.—I wish to call attention to the fact that family medicines often given to children owe their power chiefly to opium. Some persons are also fond of giving paregoric to young children. It quiets them and relieves their pain and the nurse will increase the dose from time to time. No doubt the foundation is often laid in this way for the formation of the opium habit in afterlife.

DR. JOS. T. SMITH, Baltimore—We all acknowledge the great relief that is afforded by opium in many of the evils and annoyances of life. It would appear that one of the reasons why there are not more cases of opium addiction than there are why we do not all become opium habitués, is the fact of the existence of an internal resistance, which most of us possess. This prevents us from yielding to the seductive attractions of the drug. There are some individuals who do not possess this normal internal resistance and when they experience the relief from pain and the pleasant effects from the use of narcotics, they will on the slightest provocation rush to the use of some means of relief. Many resort to alcohol, others to cocain, and others again to opium, finding excuses for repeatedly returning to the drug, whatever it may be; following along the line of least resistance. This is one of the causes of the condition referred to by Dr. Crothers. The patient who first takes a dose of opium, for instance, for chronic diarrhea, as in one of the cases mentioned, is gratefully surprised with its pleasant effects and resorts to it again and again until he becomes addicted to its use. The most of us resist evils as long as possible, but such cases yield without resistance and demand the influence of a drug. They live on the sense plane and can not rise above it, as the majority of persons in the world have learned to do.

W. W. TOMPKINS, Charleston, W. Va.—I wish to mention a case of a man 53 years of age, suffering from stone in the kidney. He had been under observation for several years. He consulted several specialists, who advised removal of the kidney. He would not consent; a few months later he passed the stone and had complete relief. During these months, however, it had been necessary, from time to time, to give him morphin amounting to six grains daily. He afterward showed no tendency to opium addiction, and never took another dose after passing the stone. He had used whisky for thirty-five years and used it simultaneously with the morphia during his illness. After passage of the stone his desire for liquor left and he had no craving for morphia, the mere mention of it producing nausea. I think the above case interesting in two particulars: 1, the fact that after using morphin for so long the habit was not formed; 2, the discontinuance of alcoholics after such a long period and no substitute taking their place.

DR. A. B. LYONS—In connection with this subject, it should be remembered that there are certain persons, whose temperament leads them to fall in love with drugs at first sight. There are some individuals who, when they make the first acquaintance with the effects of a narcotic, become slaves to it. Whether acquired or hereditary, the temperament is the immediate cause, as in the case of chloroform addiction, in which a single delightful experience may create a desire for further indulgence and require a great effort to prevent the formation of the habit.

DR, J. N. UPSHUR—In listening to the paper it strikes me that the point from which the correction of this evil should start is in the teaching of the colleges. The dangers of the reckless use of opium in prescribing should be impressed upon students in their college days. The teachers of clinical medicine are too apt to recommend a resort to opium or morphin for the relief of pain and suffering. The students leave college with the idea that opium is the sheet anchor against all cases of suffering and they consequently are led to resort to it too frequently. I fear that there are some physicians who are willing to put their patient to sleep merely that they may sleep themselves. This is a most important subject and it rests with teachers of medicine to impress upon the minds of their students the great responsibility involved in prescribing these drugs, and the great damage that may follow their use.

DR. FRANK WOODBURY—I would like to know whether we should not draw a distinction at the present day between opium addiction and the morphin habit, both as to the liability to form the habit and the consequences. The hypodermic syringe makes it easy to form the morphin habit, and individuals who have established this habit can rarely be made to change the method of administration by the mouth. Moreover, we know that morphin does not fully represent the drug, opium, which contains other constituents which are exciting and tetanizing, and therefore antagonistic to morphin. The results might therefore be expected to be different. The old-fashioned form of opium addiction by the use of the tincture, I believe to be not only safer and more physiologic, but also more easily treated in case the patient desires to discontinue its use, and I would like to have the benefit of Dr. Crothers' experience on this point.

DR. T. D. CROTHERS, closing the discussion.—This paper has been brought before the section to call renewed attention to the evils from routine use of narcotics in practice. Notwithstanding all that has been written, many physicians continue to use opium as freely as if there was no possible danger or possible after-effects from its use. This is a mistake which is becoming more and more apparent from any careful examination of the history of obscure cases. Morphia is probably the most prompt and efficacious of any form of opium in common use. The tincture of opium is the common form and differs from morphia in being less prompt, but its effects last longer. No matter in what form the opium may be given there may be present a special predisposition to continue its use, and in that way a psychosis established which will permanently impair the brain and nervous system. One central fact should never be forgotten, that the use of opium in the parents or given in early childhood is likely to produce a predisposition

which will develop into an addiction from the slightest exciting cause in after years.

SECONDARY GLAUCOMA.

A CLINICAL AND PATHOLOGIC REPORT OF THREE CASES, REPRESENTING DIFFERENT TYPES OF THE DISEASE.*

WM. CAMPBELL POSEY, M.D.
AND
EDWARD A. SHUMWAY, M.D.
PHILADELPHIA.

Secondary glaucoma may be defined as being that variety of glaucoma which occurs as a result of some pre-existing disease of the eye which has caused an increase in the intraocular tension by obstructing the angle of the anterior chamber. It is not the purpose of the writers to enumerate the conditions which may effect this closure, but merely to give a detailed report of three cases which occurred in their practice, in all of which such an occlusion was found, and in addition, to call especial attention to conditions which existed in two of the eyes.

CASE 1.—J. E. G., male, aged 39 years, first consulted Dr. Posey about his eyes three years ago. His primary ocular affection dated back four years, and was said by the patient to be characterized by pain, redness and dimness of vision in both eyes, though he thought that the inflammation was more severe in the right eye. He was treated for this attack over a period of some months by the late Dr. Keyser, and recovered with good vision in each eye. Shortly after the inflammation in the eyes had subsided, however, transient attacks of redness in his right eye occurred, which were associated with pain that was most severe in the temple, but sometimes radiated into the nose; vision also began to deteriorate. The left eye occasioned him no trouble. Instead of consulting an ophthalmologist, he applied domestic remedies of different kinds to the affected eye, and continued them for several years, as he found that he succeeded in reducing the acute symptoms by these measures fairly well.

As he noticed several months prior to consultation that the attacks of inflammation recurred more often, and that the remedies which he employed were no longer so successful in causing their subsidence, and as his vision had become much reduced, and the pain was at times almost unbearable, he decided to seek proper surgical aid.

At the time of the first examination it was ascertained that the right globe was in an advanced stage of secondary glaucoma; there was intense ciliary injection, with engorgement of the peri-corneal veins; the cornea was hazy and presented a needle-stuck appearance; the anterior chamber was almost obliterated; the iris was discolored and thickened; the pupil was 3 mm. in size and was immobile to light. Tension was +2. No view could be had of the fundus by the direct method of ophthalmoscopic examination on account of the corneal haze, but with the indirect method a deep glaucomatous excavation with dilatation of the retinal veins could be clearly seen. Vision equaled 3/50. The left eye was quiet, though a faint annular stippling of pigment upon the anterior capsule of the lens evidenced a previous iritis in that eye also. The fundus was plainly seen, and showed no gross pathologic change other than a diffuse perivasculitis of the retinal vessels, which was most pronounced in the large arterial streams. The field of vision was reduced to a small triangle, the apex of which corresponded to the fixation point, and the base to a segment in the temporal field about twenty degrees broad. Central and peripheral vision in the left eye was normal.

As the patient admitted having had a primary sore some eighteen months previously, he was at once placed on a dram of mercurial inunction twice daily. Two drops of salicylate of eserin—gr. 1/8 to the ounce—and five drops of muriate of cocain—gr. 4 to the ounce—were ordered to be instilled into the eye five or six times daily, and his bowels were freely opened by salts in the mornings. After two weeks of this active treatment, the eye had improved to such an extent that the vision now equaled 5/15, the cornea was practically clear and all the details of the fundus could be seen with the direct method, the head of the nerve being found to be excavated both above and below and to the nasal side though but slightly to the temporal side. Two weeks later, one month after the installation of the inunctions, vision was brought to normal by +1.5 Sph.+3 cyl. ax. 20°; the field of vision, however, remained as before.

About one week later the patient returned acknowledging that he had relaxed some of the details of the treatment, and complained of intense pain and poor vision in the affected eye. The ciliary injection, which had entirely subsided, had recurred with great intensity, and the cornea was now exceedingly hazy. The iris was congested, and, at a point to the nasal side corresponding to the minor circle of the iris, there was a small yellow spot with marked engorgement of the vessels in this position. A small hypopion had also formed at the bottom of the anterior chamber. The patient was at once admitted to the Howard Hospital, his temple leeched, and ice compresses applied to the eye almost constantly, and cocain—gr. 4 to the ounce—instilled every two hours, the eserin being withdrawn. The bowels were freely opened by rochelle salts and the mercury continued. After a few days of this treatment the eye again whitened, and at the end of two weeks he was discharged from the hospital, corrected vision equaling 5/6.

For several months after this the eye did uniformly well, although the patient was compelled to be extremely cautious regarding his manner of living, and most assiduous in the care which he gave to his eyes. After an interval of several weeks' absence from the office, and following some indiscretions in his manner of living, another glaucomatous attack supervened; light perception was abolished, and the eye was so painful that enucleation was advised and willingly consented to. The patient was re-admitted to the Howard Hospital, and the globe removed under ether narcosis. The socket healed rapidly after the operation and an artificial eye was inserted several weeks later. The patient was seen after the lapse of a year, and found to be using his remaining eye without any discomfort. Vision equaled 5/5 with the proper lenses and the eye was entirely free from inflammation.

The eyeball was placed in Mueller's solution at the time of operation, and was subsequently frozen in a mixture of ice and salt, and cut into halves by a horizontal section passing through the optic nerve and the center of the cornea. One-half was mounted in glycerin jelly for macroscopic demonstration while the other was carefully dehydrated in alcohol and embedded in celloidin. The sections obtained for the celloidin-mounts varied in thickness from 1.15 to 1.25 mm., and were stained in hematoxylin-eosin, Van Gieson, and by Weigert's nerve-sheath method. The other two eyeballs were treated in the same manner.

*Read before the Ophthalmological Section of the College of Physicians of Philadelphia, April 17, 1900.

Pathologic Findings.—Macroscopically, the globe measured 22 mm. in the antero-posterior diameter, and 23.5 mm. in the horizontal diameter. Retina was in place; anterior chamber shallow at the periphery; nerve atrophic and nerve-head pathologically excavated.

Microscopically, the cornea is normal, except for distension of the vessels at the limbus. The base of the iris is adherent for a short distance anterior to the canal of Schlemm, and the distance between the iris and cornea anteriorly is very much reduced. The iris shows changes due to low-grade chronic inflammation, as indicated by an increase of the cellular elements, moderate condensation of tissue, decided thickening of the vessel-walls, and some heaping of pigment, especially in the region of the sphincter. There is one small posterior synechia above, inside the pupilary area. The lens shows nothing abnormal. The nerve is reduced in volume and the connective-tissue septa are hypertrophied.

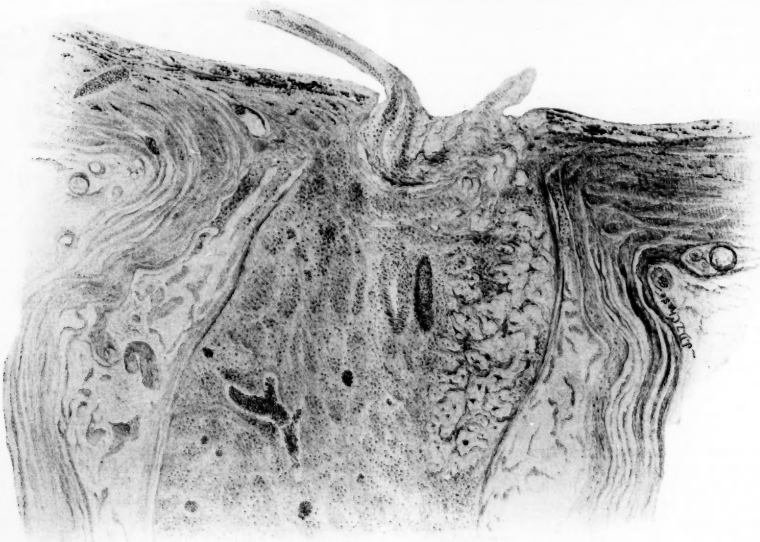

Plate 1.—Sketch of optic nerve entrance, showing area of rarefaction.

The excavation in the nerve-head is .75 mm. deep, with very steep edges, especially on the nasal side; it involves the entire papilla, and is partially filled with a mass of loose-meshed connective tissue—neuroglia fibers—but the nerve fibers are pressed to one side. The fibers of the lamina cribrosa bend backward in a sharp curve. On the temporal side of the nerve, beginning at the level of the excavation, and extending backward a distance of 2 mm. from the bottom of the excavation, there is a cyst-like space, reaching from the external sheath of the nerve, almost to the central vessels. (Plate I.) At this position there is a marked atrophy of the connective-tissue bundles; the fibers being reduced in size and widely separated, leaving gaps in the tissue. Except at the margin of this cavity, where a few of the nerve-fibers retain the Weigert stain, the nerve bundles have not only become atrophic but have absolutely disappeared, but little trace remaining of the neuroglia cells and investing pial sheath. Elsewhere there is complete atrophy of the entire nerve except for a few peripheral fibers on both nasal and temporal sides. There is, however, no disappearance of the investing sheaths as in the cavity described above. The intervaginal space is widely distended. The retina was artificially detached in hardening, but the layer of rods and cones and the nuclear layers all seem to be well preserved, while the ganglion cells appear to be much reduced in number and their nuclei stain poorly, but as the specimen was hardened in Mueller's fluid the Nissl stain was refused and their exact condition can not be determined. The pigment layer is normal, there being no proliferation of the cells, or pigmentation of the retina. The choroidal vessels are distended but otherwise this tunic and the sclera are entirely normal.

Diagnosis.—Chronic iritis, blocking of anterior chamber; secondary glaucoma, with excavation of nerve-head, and nearly complete atrophy of the nerve. Complete disappearance of the nerve-fibers and investing tissue in one portion of the nerve. Beginning atrophy of the retina.

CASE 2.—B. McK., female, aged 30 years, presented herself at the ophthalmologic clinic of the Howard Hospital eighteen months ago with a history of having sustained a fall on the ice five years previously, as a result of which she had received a severe blow in the right temple. The eyelids of this side of the head were swollen to such a degree that leeching was necessitated. After the swelling in the temporal region had subsided, she noticed that the right eye, which had always been near-sighted, was now almost blind. She made no effort however, to have the vision in the eye improved, nor to obtain relief from transient attacks of pain and redness, which

manifested themselves in the eye at frequent intervals for several years after the accident. Finally, however, the pain became so acute that she decided to seek professional advice, although she now despaired of anything being done to restore the sight, as the eye had been quite blind for five months.

At the first examination, the tarsal and ciliary injection in the right eye were seen to be intense; the anterior chamber was shallowed at the periphery, though the iris was bombé and its pupilary edge in-drawn, especially below. The lens was densely cataractous and emitted a yellowish reflex. Tension could not be determined, on account of the intense degree of ciliary tenderness. The left eye was quiet, and presented no changes other than are usual in a myopic eye of 16 D. Vision in the right eye was reduced to perception of light excentrically to the temporal side; vision in the left eye equaled 5/20.

Enucleation was advised and successfully accomplished by Dr. Shumway a few days later under ether narcosis.

Pathologic Findings.—Macroscopically, the globe measures 24.5 mm. in the antero-posterior diameter, and 24 mm. in the horizontal diameter. On the temporal side there is a shallow posterior staphyloma, the sclera being moderately thinned in this position. The retina is totally detached, and the subretinal space filled with a homogeneous exudate. The anterior chamber is shallow at the periphery, but quite deep at the center, and the lens and iris are imbedded in a mass of exudate.

Microscopically, the cornea shows a moderate infiltration with round cells at the periphery and the vessels at the limbus are distended with blood. Descemet's membrane is normal at the center, but on each side has been ruptured, and remains adherent to the anterior surface of the iris, to which it is attached by a layer of partially organized exudate, showing that during life the iris was pressed against the cornea. The filtration angle is blocked and on the nasal side the canal of Schlemm is surrounded by infiltrated cells containing pigment, evidently derived from the iris and ciliary body. The iris shows evidence of chronic inflammation, being covered anteriorly with an exudate containing but few cells. The stroma is much condensed, having been converted into dense connective tissue; the vessel-walls are thickened and their lumen is nearly obliterated in places, but everywhere filled with blood. The pigment is deposited in irregular clumps and in certain areas is much proliferated. It is attached to the lens capsule in several places by an organized exudate, and the lens capsule is covered with a similar though thinner membrane in the pupilary area. All communication between anterior and posterior chambers is thus abolished. On the nasal side, the attachment between the iris and lens is nearly complete, and where this has occurred the lens shows several small capsular cataractous formations between the capsule and its lining epithelium. The lens is imbedded in an exudate which contains but few cells on the temporal side, but which is organized on the nasal side where it is connected with the dense adhesions between the iris and the lens capsule. Here the ciliary processes are drawn inward, and the pigment epithelium on their inner surface is very markedly proliferated. The ciliary processes are becoming atrophic, and there is beginning detachment of the entire ciliary body, the fibers being pulled apart and the interstices filled with fluid. The lens, in addition to the capsular cataracts noted above, shows a splitting up of the fibers, and their conversion into irregularly round masses, especially at the posterior pole, and at the equator. No laceration of the capsule can be seen. The choroid is thin and atrophic, the fibers composing the stroma being widely separated, probably by the shrinking of the subretinal exudate during the artificial hardening of the globe. The retina is totally detached, and extends as a folded and twisted membrane from the nerve entrance almost to the lens, and then turns abruptly to its attachment at the ora serrata. It is partially disorganized; the rods and cones have entirely disappeared; the molecular layers are fairly regular, but the nerve-fiber layer is very much thickened, being converted into dense connective tissue, and the ganglion cells have disappeared. The nerve shows an increase in the cellular elements. On superficial examination, the fibers appear to retain the Weigert stain remarkably well, but under high power the myelin sheaths are seen to be broken down in places into fine drops. The degeneration is probably acute and does not involve the majority of the fibers. The nerve entrance is oblique, and there is a moderate distension of the supra-vaginal space, but no marked pulling of the nerve toward the temporal side. The sclera is normal, and at the position of the shallow staphyloma on the temporal side, shows a thickness of .55 mm. in contradistinction to a thickness of .95 mm. at the corresponding point on the nasal side of the nerve.

Diagnosis.—Detachment and secondary fibroid degeneration of retina; plastic iritis with posterior and anterior synechiæ; occlusion of pupil; anterior capsular and posterior cortical cataracts; blocking of angle of anterior chamber, and secondary glaucoma in myopic eye.

CASE 3.—L. W., aged 61 years, said that her left eye had become blind ten years previously from an ulcer for which she had been treated at another hospital. No history of traumatism could be elicited, and as she was in apparent good health, the cause of the ulceration had been attributed to "catching cold." Although the eye had remained quiet for a time after the primary inflammaton had been combated, she had suffered repeatedly from attacks of pain and redness in the eye, from which she obtained only partial relief by the persistent use of drops which she obtained from various clinics.

At the time of the first consultation at the Howard Hospital, both tarsal and ciliary congestion of extreme degree were noted as occurring in the left eye. The cornea was hazy throughout its entire structure, but at its center there was an irregular denser area of scar tissue. There were two similar narrow bands to the nasal side. The anterior chamber appeared to be very deep, the plane of the iris being drawn backward. A yellow reflex was obtained from the pupil, but no red glare could be detected. Tension was elevated, but it was impossible to ascertain to what degree on account of the extreme sensitiveness of the eye. The right eye was slightly hypermetropic, but presented no other changes, its vision equaling 5/9. Sight in the left eye was totally obliterated.

Enucleation was advised and successfully performed by Dr. Shumway under ether narcosis.

Pathologic Findings.—Macroscopically, the eye measures in the antero-posterior diameter 20 mm. and 20.5 mm. in the horizontal diameter. The anterior chamber is very deep, and the cornea is conical, 8 mm. in diameter, the periphery being drawn inward and backward. On the nasal side, just posterior to the ora serrata, the sclera is also drawn inward. No portion of the nerve appears. The retina is detached and degenerate, the vitreous cavity being filled with a mass of exudate and blood.

Microscopically, the corneal epithelium is thickened and everywhere separated from Bowman's membrane by a round-cell infiltration, and by minute blood-vessels. This round-cell infiltration is densest at the limbus, where the epithelium is widely separated from the cornea. In the substantia propria there is a moderate extension of round cells between the deeper layers. At the central part of the cornea Bowman's membrane is interrupted, and directly beneath this the laminæ are replaced by dense scar tissue. The cornea is thinned in this area, and Descemet's membrane absent, a sharp notch appearing in the posterior surface of the cornea, which is partly filled with degenerate cells partially pigmented and with pigment clumps. This apparently indicates the point of perforation of the cornea, with attachment of the iris. Descemet's membrane is intact elsewhere.

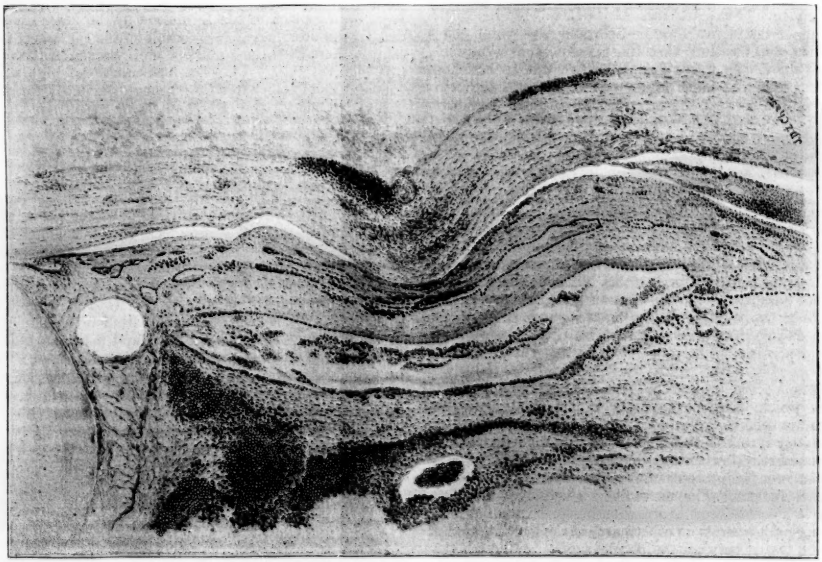

Plate 2.—Exudate on choroid, showing cavities lined with pigment epithelium.

The iris is firmly attached to the posterior surface of the cornea, at the periphery, and is completely atrophic, being reduced to a thin connective-tissue layer. There is a beginning intercalary staphyloma. The anterior chamber is partially filled with blood and a homogeneous exudate. The lens is surrounded by a mass of exudate which is firmly organized anteriorly, forming a dense membrane extending between the margins of the iris, and completely occluding the pupil. This exudate is less firmly organized posteriorly, and fills up the remnants of the vitreous cavity between the ciliary processes, lens, and detached retina as a layer of loose connective tissue, with numerous round cells, and minute capillaries, which spring from the retina at the ora serrata. The ciliary muscle is atrophic, infiltrated, and the processes drawn inward and forward by the exudate. Its pigment layer is markedly proliferated. The retina anterior to the ora serrata is cystic, the supporting fibers being drawn inward by the shrinking exudate, and the cavities thus formed are filled with a homogeneous fluid. Just posterior to the ora serrata, the retina is detached and bends sharply forward and merges into the mass of exudation posterior to the lens, becoming completely degenerated. All of its elements have disappeared, and its situation can be recognized best macroscopically by an indistinct bluish line, extending backward from the lens, which under higher power is seen to be composed of a mass of granular debris, red blood-cells, and a few partially staining nuclei imbedded in a fine-meshed reticulum. The pigment epithelium of the retina in places is fairly regular, but in others it has disappeared. The choroid is thickened to several times its normal size, and shows numerous irregularly circular masses of fresh round-celled infiltration. The meshes of the choroidal stroma are widely separated. The surface of the choroid is covered with a firmly organized layer of exudate which on the temporal side is over one mm. in thickness, into which the proliferated pigment epithelium extends. This exudate shows wide spaces anteriorly lined with flat pigmented cells and partially composed of red corpuscles and leucocytes. The exudate is chiefly composed of spindle cells and fine fibrillary tissue, and contains a large amount of light-colored pigment in clumps, probably of hematic origin, numerous round cells and freshly extravasated red blood-corpuscles. The space between it and the detached retina is filled with a mixture of fresh blood and of a homogeneous exudate, staining pink with the eosin. Near the nerve entrance on the temporal side there is an area of calcification in the exudate.

The sclera and episcleral tissue in the ciliary region are infiltrated with round cells on the nasal side. Just posterior to the ora, the sclera is drawn sharply inward and at this point shows an increase in the cellular in-

filtration. At a corresponding point in the choroid, there are a series of circular areas of complete cell-necrosis, containing a fine granular debris measuring about one mm. in diameter. There is, however no proliferation process surrounding them, and they probably represent previously deposited masses of round cells. The lens is cataractous and shows several areas of calcification. Unfortunately, the nerve was not included in the sections. It would certainly have shown complete atrophy.

Diagnosis.—Irido-choroiditis following perforation of the cornea. Secondary cataract. Occlusion of filtration angle of anterior chamber, secondary hemorrhagic glaucoma. Detachment and complete degeneration of the retina. Beginning atrophy of the globe.

It is of interest to note, in connection with these cases, that all exhibited a greater or less degree of blocking of the angle of the anterior chamber, and that it was, as a consequence of the impediment which was offered to the escape of the intraocular fluid through the lymph-channels in this position, that the glaucomatous symptoms supervened. In Cases 2 and 3 there was in addition, occlusion of the pupil and interference with the communication between the anterior and posterior chambers. Coinciding with the relapses which were manifested clinically all three eyes showed changes, the result of different stages of inflammatory action.

Case 1 is of peculiar interest from the fact that despite the very severe clinical manifestations in the anterior segment of the eye, the microscopic changes in the iris ciliary body are remarkably slight. The writers wish to call especial attention, however, to the peculiar cavity in the optic nerve of this eye, as a careful search through the ophthalmologic literature has failed to discover any similar condition. No less an authority on nervous tissue than Dr. William G. Spiller, to whom the sections were shown, states also that so far as he is aware, such a condition has not been described in the central nervous system. When the cavity is subjected to the close scrutiny of the highest power of the microscope, fine fibers which have the appearance of typical neuroglia fibers are seen to cross it. The few cells present are of this latter type also, but much larger than normal, showing numerous branching processes proceeding from a central area of protoplasm which includes the deeply stained nucleus. The nerve-fibers themselves are seen to have not only become atrophic, but to have absolutely disappeared, whereas in other parts of the nerve they can still be traced between the fibrous septa. Although the anatomic structure of the cavity is evident, its explanation is extremely difficult. Both Dr. Spiller and the writers, however, concur that it is probable that the area involved is one of rarefaction of tissue, in which for some unknown reason the atrophic process was not accompanied by the usual sclerosis of the connective-tissue fibers, whether of pial or neurogliar origin, and that, perhaps, to some extent the separation of the fibers, with the open spaces between, was increased by the process of hardeing and imbedding the eye. It is possible that the interfering process was a local edema, although the cavity does not present the appearance of a cyst. There are no traces of any previously existing exudate or hemorrhage to account for it, and the writers can only present the specimen as a unique condition without attempting further explanation.

In the second case, the absence of decided atrophy of the nerve, in conjunction with such extensive changes in the retina, is rather remarkable, but doubtless indicates that the detachment of this membrane was of recent origin.

In the third case, the point of greatest interest is the formation, in the old exudate, on the surface of the choroid, of the large cavities, which are lined with a single layer of cells. (Plate II.) These cavities vary greatly in size, the largest being 2 and 3 mm. long, and 1 mm. wide. On casual examination, they appear like enlarged lymph-spaces, lined with endothelium. More careful study, however, shows that these lining cells are pigmented, and that the pigment granules are in the form of the minute rods which are typical of the retinal pigment cells. Such cavities have been previously described and discussed by Krueckmann[1] in his article on pigment changes following ligation of the choroidal vessels. He thinks that they are due to the union of two separate processes of the proliferating pigment epithelium. The writers, however, believe that the method of their formation was different in this case. By studying a series of sections, it is possible to follow the process, from its inception to the formation of the largest cavities. As in every case of exudation on the surface of the choroid there has been a marked proliferation of the retinal pigment cells. These can be traced as single and double lines of cells, extending through the newly formed tissue. In places, the cells composing the double lines are separated by a narrow space containing a few blood-cells. Between these small spaces and the large cavities there are cavities of intermediate size, all of which are lined with pigment cells, while many contain loosely coagulated fluid, with a few red corpuscles and the leucocytes. From the subsequent shrinking of the tissue the process may be outlined as follows: Proliferation of the pigment cells, at first in a single layer, later in double layers. As a consequence of the subsequent shrinking of the exudate, these layers are pulled apart and interstices are formed in which fluid collects, and as the contraction of the exudate advances, and more fluid is forced into the laminæ, the latter become more and more distended and form the cavities which have been described. In their complete form, it is possible that they may act as true lymph-spaces, although lined with epithelium instead of endothelium.

THE THERAPEUTIC PROPERTIES OF THE SUPRARENAL CAPSULE.*

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NEW YORK CITY.

The curative action of the suprarenal extract, dealing with all inflammations of the body and with those diseases which are affected by changes in blood-pressure, covers a wide area of therapeutic application. If we are to use this drug, which is so rapid that its maximum effect is reached in less than one minute, and so potent that some obstinate cases of chronic keratitis have been cured in one treatment, it is imperative that we should know what effect the suprarenal extract, absorbed from its local use in the eye or ear, will have on other organs, since the patient may also have serious lesions of the heart, kidneys or other tissue. To obtain this necessary knowledge, I had at my command my own clinical observations, my laboratory experiments, and the experiences of physicians whose work lies in other fields. The conclusion drawn from these data is that no condition of organic disease contraindicates the use of suprarenal, non-septic solutions being absolutely harmless. Its constitutional action may be briefly described as a muscle tonic, restoring the power of contractility to all muscle

1Archiv. f. Ophthal. xlviii, 2.

*Read before the New County Medical Association, May 21, 1900.

fibers, especially those of the arteries and heart. The fact that the suprarenal is a muscle tonic, supplying what is one of the necessary components of muscle tissue, may also explain why it is not a poison. In dealing with a drug a small dose of which produces a powerful effect, we naturally expect a large dose to be an active poison, but the suprarenal is unique in that while one-tenth grain has produced the maximum physiologic effect, two ounces caused no further effect. It has been shown by physiologic experiments that the excess of the suprarenal supplied for muscle tissue is stored for future use. It is important also to remember that no result will follow the administration of it unless its use is indicated, and when indicated the benefit follows immediately.

The suprarenal being a muscle tonic explains also its action in apparently opposite lesions of heart disease. The laboring heart, due to stenosis of the valves, is relieved by the suprarenal, as well as when it is due to insufficiency; and a dilated heart is benefited as much as a small one. When the pulse is of high tension, it becomes softer, and when the pulse is weak it is strengthened. Again, when the pulse is too rapid and weak, the suprarenal will retard and strengthen it, while a slow, weak pulse will approach the normal, and one irregular in force or frequency or intermittent will become regular. On the other hand, the strong pulse of a normal or diseased heart is not affected by the suprarenal.

When the peripheral vessels are contracted and the extremities are pale, the circulation is improved after the internal administration of the suprarenal, and in the opposite direction, when the peripheral vessels are dilated, with the extremities congested, the suprarenal is beneficial, giving tone to the heart and blood-vessels. It has a selective action for congested tissues; for example, the inflamed mucous membrane of the nose in acute rhinitis will be whitened after the internal administration of the drug, while the normal conjunctiva of the eye will remain unaffected.

When the aqueous solution of the extract is applied to mucous membrane, the parts are whitened in one minute, and a secondary dilatation of the vessels does not follow.

Dreyer[1] found that the secretion of the adrenals could be increased by electrical stimulation of the splanchnic nerves. I have observed, clinically, that the physiologic effects of the internal administration of the dried glands can be obtained in acute rhinitis by the use of electricity or counter-irritation over the dorsal and lumbar region, which suggests the possibility of an increase of the internal secretion of the adrenals.

Preparation and Preservation of the Aqueous Solution.—It should be mixed in a test-tube, taking one part of the dried powdered suprarenal to ten parts of a saturated solution of boracic acid, and held over a flame until it boils; then it should be filtered and the filtrate boiled in its permanent receptacle. A solution of the aqueous extract prepared by this method will retain its properties for months, and the whole process requires only about three minutes.

The solution is more active when prepared without the boracic acid, but I use the latter, boiling it daily to prevent decomposition.

Cautions in its Administration.—It is necessary to use freshly prepared solutions to obtain the best local effects, and if the drug is used in the form of a powder or emulsion, the excess should be removed to prevent infection. In severe nasal hemorrhage, it is difficult to reach the bleeding surface with the extract if applied by a spray or by cotton on a probe. In some cases, I syringe a 10 per cent. emulsion with force into the nares before the bleeding ceases. Tampons, wet with the extract solution, should not be left in the nose, because infection occurs in a few hours, with vascular disturbance and secondary hemorrhage. This warning should be emphasized, for I have seen one case with a temperature of 104 F., general pains and great prostration for three days from the use of a putrid solution of the suprarenal. When administered by the stomach, the active principle may be destroyed by alkaline fluids, so more constant results are obtained by placing the dry powder on the tongue and directing the patient to swallow it slowly when it becomes moist. The greatest care should be employed to obtain an aseptic solution when it is used hypodermically.

Eye and Ear Diseases.—The following are a few facts which I have noted in the treatment of the eye and ear: 1. The temporary effects of the suprarenal in inflammations may be made permanent by the use of other treatment. In some cases of acute infectious conjunctivitis, I have been able to cure the disease in one treatment by thoroughly cleansing the eyelashes and exterior of the eyelids with a 2 per cent. solution of carbolic acid, after the eye had been blanched by the instillation of suprarenal. 2. Excellent results follow a similar treatment of gonorrheal ophthalmia. 3. Cases of deafness which are not improved by the usual methods of treatment have been cured by the suprarenal in addition to other treatment.

Nose and Throat.—1. The suprarenal is invaluable in controlling hemorrhage after nasal operations, and I now perform major operations on the nose with very little hemorrhage. 2. By lessening congestion, so that other treatment will be efficient, the suprarenal is useful. I have cured acute rhinitis by the local use of the suprarenal, followed by a mild antiseptic. Quoting Dr. E. Mayer: "For these cases, the extract does wonderful things, and if it never had any other value it would have its mission in this alone." Dr. J. J. Griffiths cured four cases of acute influenza of the nose in one treatment. He used the dried powder locally, with a powder-blower. One case was infected, but recovery followed in six hours. 3. Chronic rhinitis is temporarily improved by suprarenal, and permanent results are obtained from the use of other treatment, the suprarenal being a valuable adjuvant. 4. The internal use of the suprarenal powder, gr. v., t. i. d., is beneficial in diseases of the nose and throat. 5. Dr. H. Holbrook Curtis has found the suprarenal of great value in laryngeal phthisis. Its local use relieves dysphagia better than cocain. He has also obtained benefit from its use in the acute laryngitis of singers, when the vocal chords were relaxed or congested.

Hay-Fever.—The suprarenal is a specific for this disease, being used locally and internally. Many patients who have suffered for twenty years with yearly attacks of hay-fever have been temporarily relieved of all their symptoms in five minutes by this remedy. Dr. Beaman Douglas[2] has recently written a very valuable paper on this subject. Dr. O. D. Pomeroy had such good results in treating ulcers of the cornea with it that he was led to use it in ulcers of the tongue and mouth with success.

Edema of the Glottis.—I am indebted to Dr. H. Boeker for the history of the following case of edema of the glottis, in which the suprarenal gave immediate relief: this is the third case on record, the first being published

1. American Journal of Physiology, 1899.

2 N. Y. Medical Journal, May 12, 1900.

by Dr. S. S. Cohen: M. J. P., aged 30 years, during an attack of erysipelas of the face and neck, developed alarming symptoms in the throat. Late at night the doctor was hurriedly summoned to the patient, who could hardly breathe from the swelling of the throat. Six grains of the suprarenal were placed on the patient's tongue and he was directed to let them slowly dissolve in the saliva of the mouth. Five minutes later a decided amelioration of the threatening symptoms was noted, and an uninterrupted recovery followed.

A fourth case was successfully treated with the suprarenal by Dr. H. Holbrook Curtis, who believed that tracheotomy would have been necessary without it.

Hemostatic Properties.—If the suprarenal did not have any other striking properties, it would be remarkable for its hemostatic power alone. Bloodless operations on the skin have been done by means of the suprarenal used hypodermically. In cases of hemophilia, when other remedies failed, it controlled at once nasal and urethral hemorrhage. Secondary hemorrhage is not increased by its use. Hemorrhage may be controlled by its internal administration. In one case of intraocular bleeding, the extract controlled it and saved the vision. In a like manner, a case of severe uterine hemorrhage was controlled, and it was used with success in one case of severe hemorrhage in ulcer of the stomach.

Exophthalmic Goiter.—The cases improved immediately after the first dose; the circulatory disturbances, the tremor and thyroid enlargements became less.

Asthma.—Dr. S. S. Cohen[3] found the suprarenal of value in twelve cases.

Urethra.—Drs. Otto, Alexander and J. A. Moore find the hemostatic property of the suprarenal valuable in internal urethrotomy and in the treatment of urethritis.

Rachitis.—Stoeltzner[4] is the first to publish beneficial results from the suprarenal in rachitis.

Kidneys.—Dr. J. M. Otto reports two cases of interstitial nephritis very much improved by the suprarenal.

Heart Disease.—Physiologic experiments on dogs by Oliver and Schäfer have shown that the suprarenal is a most powerful heart stimulant. With .01 gm. of the fresh suprarenal the blood-pressure of a dog was raised more than twice its original height, while with .22 gm. of digitalis leaves no appreciable effect was obtained. They also obtained negative results with ergot.

Cleghorn, experimenting on the isolated dog's heart, found that the apical contractions were doubled by the suprarenal.

Exact knowledge of the properties of a drug can be obtained by laboratory experiment, and is usually more reliable than clinical observation. When both agree we are close to the truth.

Drs. R. W. Wilcox and C. J. Mooney noted the action of the suprarenal in the following:

M. S., aged 38 years, had general arteriosclerosis, with lesions of all the heart valves. The patient has been on exhibition in New York and other cities before classes of students in general medicine. His heart and circulatory phenomena are very interesting. The pulse was 90, of high tension and irregular in force and frequency. The patient was given gr. v of the suprarenal powder on the tongue, and ten minutes later the pulse was softer and more regular. The effect continued more than eighty minutes.

Dr. S. Floersheim treated 15 cases of heart disease with a mitral regurgitant murmur, with the extract, in which he noted: 1, a weak pulse became stronger; 2, a high-tension pulse became softer; 3, an intermittent pulse, or one irregular in force and frequency, became regular; 4, a dilated heart was contracted; 5, the normal heart-sounds were more distinct, while the initial regurgitant murmur became less audible. He is the first to call attention to this phenomenon; 6, the suprarenal produced no apparent effect when the pulse was strong in the normal heart or in organic heart disease.

Reports of cases confirming these observations have been sent to me by Drs. J. M. Otto, G. W. Kelly, A. A. Wolfe, E. C. Bennett, G. A. Rogers, J. J. Griffiths, C. D. Jones, John Clark, P. W. Barber and George B. Fowler. These observers have also found that the suprarenal has stimulated the heart after other well-known remedies had failed.

The suprarenal has proved to be my most valuable remedy in the treatment of the eye and ear. I find indications for its use in the majority of my cases; and with increasing experience, I am extending its therapeutic application. My results have been confirmed, and in other hands its usefulness extended, even beyond my very sanguine expectations. This is noteworthy when we remember the unusual properties of the active principle: 1, we have found no element or compound which may be added to it in solution without impairing its activity; 2, decomposition occurs in a solution which has not been sterilized, and the administration of an infected solution is very dangerous.

When we remember the difficulty of impressing on commercial chemists and practicing physicians new methods of procedure, it is remarkable that so few have been disappointed in the results of their use of the suprarenal extract.

50 East 64th Street.

3. THE JOURNAL, May 12, 1900.
4. Jahr. f. Kinderheilk., 1900, No. 1.

SCROFULOUS KERATITIS.

OBSERVATIONS ON ITS ETIOLOGY, AND ITS TREATMENT, ESPECIALLY BY SALICYLATE OF SODIUM.*

H. GRADLE, M.D.
CHICAGO.

Under the head of scrofulous or lymphatic keratitis, or kerato-conjunctivitis, many writers include several forms of disease besides typical phlyctenules and the infiltrates into which they may change. These are the various forms of superficial vascular, marginal keratitis, known as phlyctenular pannus and fascicular keratitis, as well as some plastic or papular vascular tumefactions at the corneo-scleral margin. It is characteristic of these different types that they occur only in children, or if in adults, only in those who have had more or less continuous attacks of corneal disease since childhood. It is less commonly known that in the earlier attacks of this form of disease the phlyctenular type prevails, and that the various vascular and plastic lesions are only seen at later periods.

The term scrofulous was applied by the earlier observers, because these diseases are mostly seen in typically scrofulous children. This fact has been less emphasized in recent literature, perhaps because the diagnosis of this latter condition scrofula has lost much of its former scope, and is now in a transition period. Many of the attributes and symptoms formerly referred to it we know now to be coincidences of secondary importance. The eye disease itself, formerly ranged as evidence of scrof-

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ula, does not occur in every scrofulous child. Suppurative otitis, once considered a classical symptom, we now know to be an accidental pyogenic infection. The nasal symptoms and their consequences, for instance, the thick lips, are the results of enlargement of the pharyngeal tonsil, which is common but not constant in scrofula, and which, too, can occur without any other sign of scrofulosis. Even the eczema, so typical of it, is not always present and occurs as well in non-scrofulous individuals.

What is left, then, of the clinical conception of scrofula? The only practically constant lesion is the presence of enlarged lymph-glands, usually cervical, and with it a more or less evident degree of malnutrition, whence the liability to the aforesaid complications.

Clinical observations, and more especially autopsies, show that the most common lesion of the enlarged lymphatic glands in childhood is tuberculosis. In fact, this seems to be the invariable condition whenever the clinical diagnosis of scrofula can be made. Even if the tangible cervical glands are not involved, tuberculosis is found in the deeper parts of the lymphatic system, as the bronchial glands. The identity of scrofula with tuberculosis of the lymph-glands has been even more fully established on a large scale by the results of diagnostic injections of tuberculin, as reported from the Berlin Institute of Infectious Diseases by Petruschky and by Beck, and in this country by Otis.

It is well known that the phlyctenular and allied types of corneal disease occur mainly in distinctly scrofulous individuals. It can also be readily observed that the more severe and rebellious forms of keratitis coincide with the most pronounced general manifestations of scrofula. The question, therefore, occurs whether these forms of eye disease are not by themselves evidence of the existence of a tubercular focus somewhere in the lymphatic system. I do not mean that they are tubercular lesions due to the presence of the tubercle bacillus. But the conclusion seems to me well founded that these types of keratitis occur only in individuals under the influence of poisons produced by the tubercle bacillus in one or more lymph-glands. The occasional rare observation of the eye disease in apparently non-scrofulous subjects is more logically explained by the existence of a small hidden tubercular focus than by assuming them to be exceptions to an etiological relationship so well established by clinical experience.

The accuracy of this view could be proved by a continuous series of tuberculin injections. Personally, I have only been able to make this trial four times—always with positive febrile reaction, two of these being apparently non-scrofulous children. This number is, of course, altogether insufficient for generalization.

The direct exciting cause of phlyctenules is not known. The search for bacteria by Gifford, Bach, Axenfeld and others has given negative or inconstant results. Regarding the direct etiology of the other scrofulous manifestations on the cornea we know even less. Clinically, however, it can be observed that there are a variety of lesions adjoining the eye which often precede the corneal, or conjunctival, disease, while in other cases their presence seems responsible for relapses or protracted persistence of the eye lesion. The hypothesis of their apparent influence is mainly based on therapeutic results. While these are often more or less ambiguous, still, a sufficiently extensive observation shows that in many of the more rebellious instances of the eye disease the cure is favored and the liability to relapses diminished by the elimination of these concomitant lesions. Although this connection is discussed in some of the text-books, especially fully by Fuchs, it is ignored in others, and often, too, in practice. These unfavorable concomitant lesions are the following:

Catarrhal conjunctivitis of the eyelid—itself always a secondary complication—may protract the corneal lesion until it is cured by nitrate of silver. More serious even than diffuse catarrhal conjunctivitis is the hypertrophy of the upper retrotarsal fold, the "Schwellungs-katarrh" of German writers. This is not always accompanied by catarrhal secretion. In this form I have often used strictly localized applications of 10 to 25 per cent. solutions of nitrate of silver with benefit, when weaker solutions failed. Ulcerative blepharitis—not a rare complication, may help to maintain the corneal disease until checked by the nitrate of silver stick. Eczema of the eyelids or face has been noted by Continental writers as such a frequent complication that the term eczematous kerato-conjunctivitis has been largely accepted. In observations in this country this coincidence is not so common, although sufficiently frequent. That eczema exerts an unfavorable influence upon the duration of the eye disease and increases the chances of relapse can be definitely inferred by comparing the history in long-standing cases before and after the successful cure of the skin disease. It has likewise been noted that the presence of lice in the hair may exercise a similar prejudicial influence.

Relapsing phlyctenular eruptions are in some few instances preceded every time by a sudden, but subacute, nasal catarrh, so that the latter may be properly suspected as the direct starting-point of the eye disease. This definite relationship has not been a frequent one in my observation. Much more common is the secondary occurrence of the typical form of scrofulous nasal catarrh—a subacute rhinitis with characteristically thin seropurulent secretion, causing erosions and eczema at the entrance to the nose. I am not positively assured by my therapeutic experience how much influence this nasal disease has upon the ocular lesion. It is a very frequent coincidence, and its treatment has sometimes seemed of decided benefit to the eye; but in other instances no such influence was observed. Regarding another very common nasal coincidence, viz., enlargement of the pharyngeal tonsil, I can say positively that its removal lessens the liability to ocular relapses, but that it has not seemed to benefit the existing ocular lesion in any very striking manner.

In judging the etiologic relationship of the aforesaid complications to the eye disease on the strength of therapeutic results, it is, of course, essential to know what the local ocular treatment would have accomplished by itself. In fact, my most positive conclusions were obtained in those cases in which proper local treatment has previously been exclusively relied upon by some other surgeon.

Regarding the efficacy of local treatment, I believe I can add an item to the mooted question as to the advisability of atropin. In all forms of corneal disease in which the ciliary injection is strictly localized to the quadrant of the lesion the use of atropin is irrelevant and unnecessary. Its subjective and objective influence is generally apparent, however, whenever the ciliary injection is diffuse, especially in the case of deep lesions. The more superficial the process the less the beneficial effect produced by atropin. The influence of atropin upon the disease can also be judged by the reaction of the pupil. Prompt dilatation shows that nothing will be gained by continuing its use, while resistance to dilata-

tion may be stated as a definite indication for its further use.

In spite of appropriate local treatment and attention to existing complications a small number of cases of scrofulous keratitis prove very refractory. I do not refer, of course, to typical phlyctenules, as these are always transient lesions, altnough they may be followed by very persistent localized infiltrates. Apart from these infiltrates it is essentially the more extensive lesions of later attacks which may continue and extend, notwithstanding proper care. It is for this class of cases that I can recommend salicylate of sodium internally. I have only used it when all other treatment had failed to influence the disease after a trial of reasonable duration—altogether in about twenty instances. Of these one-fourth were not influenced perceptibly, in three the results were either transient or a mere coincidence, while in more than one-half of the cases an unmistakable improvement in the subjective and objective condition was obtained within forty-eight hours. Large doses are required, one to one and one-third grams every two to three hours for an adult; two-thirds of a gram at a dose for a three-year old child, perhaps four times per day. Ringing in the ears or depression may enforce a temporary interruption. Small doses are useless. The remedy is best tolerated in the form of tablets—five grains. If no influence is perceived after the steady use during two days, it is useless to continue it. In favorable cases it may be omitted on trial after a few days. Sometimes the recovery will continue at the same rate, in others it is best to resume the drug. In a few instances in which prompt effects were obtained at first the remedy seemed to lose its influence after a while. There is hence nothing specific in its action. Its influence was most pronounced in the cases accompanied by much suffering. The form of the disease over which it had the least control was the circumscribed post-phlyctenular infiltrate.

DISCUSSION.

DR. J. L. THOMPSON, Indianapolis—I have met with a great many of these cases, but they did not all occur in scrofulous patients by any means. In our section of the country I should think we have about ninety-nine out of one hundred of these cases occurring in hot weather, very frequently in the early spring, but if we have intelligent patients whose parents are able to take them to a cooler region for a short time they are usually all right after a few days. The parents will often write in a short while that Johnnie or Mary is well and ask if they can be brought home. I tell them to stay in the north. They must also be careful of the diet, for if they take excessive quantities of cakes and candies they may expect to have the trouble for a long time. Fresh air is, however, most important. These cases may appear first as herpes or eczema, and if kept in close, hot quarters all the treatment on earth will not relieve them. I have had cases of this kind occur in adults, and many people after an attack of migraine immediately have one of these phlyctenules of the cornea.

DR. ROBERT SATTLER, Cincinnati—I would like to ask Dr. Gradle whether he supplements the internal treatment with sodium salicylate by the use of any local measures, such as curettement, etc.?

DR. S. D. RISLEY, Philadelphia—I would like to recall once more the history of a case that I related to this section several years ago, of a child that had been tormented by attacks of phlyctenular keratitis in successive summers, each attack being very persistent. They finally ceased to recur, and many years later this child was brought back to me at the University Hospital clinic with a hunched back, interstitial keratitis and Hutchinson's teeth. The early attacks presented all the characteristics of phlyctenular keratitis, but they evidently had a basis of inherited syphilis, which had sapped the vitality of the child.

DR. A. W. CALHOUN, Atlanta, Ga.—The speaker did not mention the use of protargol, or any of the astringents. In the abundant experience in the section I come from, where this disease is common among colored people, the parents are found to be of tuberculous habit very largely. During the last winter I have experimented with protargol with very satisfactory results. The ordinary treatment would have very little benefit, but in a number of instances I have used this remedy in 1 per cent. solution with good results, applying it directly to the ulcerated surfaces. I can bear testimony to the use of sodium salicylate internally at the same time.

DR. A. R. BAKER, Cleveland, Ohio—For many years I have looked upon phlyctenular ulcers of the cornea as being due largely to digestive disturbance, and I found that as long as I treat the eye alone I do not succeed in curing my cases. In fact, I think I got the idea from seeing many cases that had failed under treatment by some oculist go back to their family physician and get well after he had treated their digestion. So I have for a long time commenced the treatment with a few doses of calomel and soda, and followed that with iron, arsenic and strychnia, and in addition to that given almost exclusively milk diet. Many of these children would not get well at home, because their parents indulged them, but would recover rapidly in the children's hospital, and whenever we can regulate the diet and send them to the country, perhaps to some of the country homes for children, they get well and remain so. I have come to look upon these cases, then, as largely cases of disturbed digestion, and pay very little attention to the local treatment of the eye itself.

DR. A. D. MCCONACHIE, Baltimore—I rise to endorse the last speaker's statement. My experience has been much the same, and I believe it has come to be a standing joke, among my confrères who listen to me in the Presbyterian Dispensary work, that I lay very little stress on the local treatment. You must be emphatic with the parents in speaking of the dietetic treatment. In fact, I think it would be well if we could make out printed instructions to apply to these cases. Just a few days before I left home the father of one of these sick children said to me: "I guess it will not hurt the child to eat bananas?" I asked how many he ate a day, and the father replied, thirteen; the child was only 3 years old. I would be a little afraid of the action of sodium salicylate on these children, whose stomachs are already disturbed. I believe 99 per cent. of these cases will get well without local treatment, but in some cases I have used ichthyol in conjunction with the usual collyria, with very great satisfaction. The removal of adenoids, when present, is most essential. Many of these cases are accompanied by nasal catarrh, which should receive appropriate treatment.

DR. JOHN S. KIRKENDALL, Ithaca, N. Y.—I quite agree with all these gentlemen as to the influence of the treatment that they have described. But there is one very important factor in most all these cases, especially the obstinate ones, which they have overlooked, or omitted, and that is the presence of nasal growths, adenoids, etc. I believe that these phlyctenular cases are infectious, and that the nasal secretions are the causative factors. I have found this true in almost every case, and by the removal of the tonsils and adenoid growths, and by the use of the spray, and all possible means to prevent this nasal secretion from coming in contact with the eyes, I have not failed in any case to prevent the corneal scars which are the result of prolonged attacks of this trouble.

DR. G. A. ASCHMAN, Wheeling, W. Va.—Even fifteen or twenty years ago it was acknowledged that there were different etiologic factors in this disease and we must consider it in selecting the proper treatment. It is true, I believe, that the majority of these cases come from digestive disturbances, but undoubtedly in those cases where nasal conditions are the cause, there is some influence on the fifth pair of nerves, as there is in the cases that take on the herpetic form. I should imagine that in those cases the sodium salicylate would be of benefit. I think, however, it is absolutely necessary to consider the etiology in every case.

DR. JOHN CHASE, Denver—For a number of years, in talking with students, I have summarized the subject by suggesting to them that they have to deal with an unhealthy animal, and that success or failure will follow according as they realize

this. The lack of good red blood-corpuscles is frequently the cause of the condition. If possible I have these patients sent to the country and beg or cajole them into the use of proper diet.

DR. ALBERT E. BULSON, JR., Fort Wayne, Ind.—I want to say a word about the use of sodium salicylate in these cases. For a time I thought it very efficient as a constitutional remedy in phlyctenular keratitis, but I used it as an adjunct to dietetic and hygienic measures. I soon found, however, that my cases improved just as well without the salicylate treatment, and in many cases a great deal better; the salicylate only aggravating the stomach derangement, which is almost invariably present. I want to endorse what has been said regarding the cause of the disease being essentially one of bad dietetic and hygienic conditions. Good, but plain food, regularly administered, and an abundance of fresh air, are as essential as medication in the treatment of phlyctenular keratitis.

DR. L. J. LAUTENBACH, Philadelphia—Since a year or two ago, by using a very simple method for removing adenoid growths I feel more ready to go into the pharynx and work, and I rarely see a case of this kind in which I do not examine the throat. In a large proportion, probably 40 or 45 per cent. of these cases, I find a growth present, and I believe that these are not all cases of indigestion, but rather of specific affection, or some deep systemic disorder of which these manifestations are but symptoms. These may be readily separated, however, from the ordinary phlyctenular cases, although I will not here give you the exact lines of demarcation. I believe in hygienic treatment in these cases, of course, but as a rule in the cases I have received the general practitioner has already looked after that part of the work. It is sometimes wonderful to note the effect of removing the adenoids. In this special class of cases I frequently use cod-liver oil. It seems to be almost a specific. I think that these phlyctenulæ represent two or three separate and distinct diseases, and it is for us to distinguish each from the other, make the diagnosis accurate, and treat them accordingly.

DR. H. V. WÜRDEMANN, Milwaukee—In my experience, phlyctenular keratitis is simply a symptom of some one of many diseases. It is rarely a symptom of local infection. It may be a symptom of a disease within the air-passages of the nose and pharynx, or much more commonly, an evidence of systemic dyscrasia. Each case is a special study, and, besides the general treatment, we must search out the local cause, as it is only by a combination that we succeed in a cure of this very common affection.

DR. LEARTUS CONNOR, Detroit—There are a vast number of children who have indigestion, and of this number relatively few have the disease we are now discussing. There are a vast number of children who have diseases of the nose and adenoid tissue of the nasopharynx, and of that number, as my observation goes, but relatively few have this disease, and so I think it is rather illogical to say that either one or the other of those conditions produces phlyctenular keratitis. I suspect myself that the truth will be that these conditions we have been alluding to are supplemented by some sort of a local irritation or infection. I have myself observed it come on in persons thus reduced by exposure to a strong wind or to dust, infected air, and other local causes. While it is true that it is necessary to make the child a healthy animal by the use of outdoor exercise, attention to the diet, etc., the local treatment is extremely useful, and I rise to say that as the result of observations made during the last year, I have found that after the general conditions are made right the use of protargol solution, even in larger doses than Dr. Calhoun uses, has been very satisfactory. I do not neglect the use of atropin, which I regard as essential. I use protargol in strength as great as 30 and even 60 grs. to the ounce.

DR. FRANK ALLPORT, Chicago—Amongst the other causes of phlyctenular keratitis I desire to remind the section of the process of teething. I have recently seen a baby who had a phlyctenule every time a tooth appeared, and I soon learned that the first thing to do was to lance the gum, which usually quickly relieved the eye trouble. There is one point in regard to the treatment that I am surprised no one has mentioned, and that is the cauterization of the ulcer. I find great satisfaction in cauterizing each one of the little phlyctenules as they appear, with a 95 per cent. solution of carbolic acid, applied on a small probe, protected with cotton. I commence the treatment of all my cases with this and follow it with the local and constitutional treatment already described by so many.

DR. HIGGINS—I want to inquire of the writer of the paper if he has not noticed, among all these causes, eye strain as a cause? I have paid some attention to this, and whenever I have one of these little patients come in, and they are generally of that age where they are just beginning to use their eyes, I request the parents to bring them back when the eyes are well enough to test the refraction, and I have usually found some refractive error.

DR. R. L. RANDOLPH, Baltimore—I would like to ask Dr. Gradle if he has succeeded in getting any good results in ulcers of the cornea without the use of atropin, and I would also ask what strength of protargol solution he uses? It has always seemed essential to me to use atropin.

DR. A. W. CALHOUN, Atlanta—The strength of protargol solution I have used ranged from 1 to 5 per cent.

DR. LEARTUS CONNOR, Detroit— I have used it in from 20 to 60 grains to the ounce.

DR. GRADLE—The object of my paper was, in the first place, to raise the question whether every instance of phlyctenular keratitis or the other allied varieties of keratitis depended upon a tuberculous diathesis. It seems I did not express myself very clearly, for the discussion has wandered off from that subject. The question itself, I am not in a position to answer absolutely. We can do that only by making a continuous series of tuberculin injections in a number of unselected cases. A great many other data, however, point strongly to the idea that a tuberculosis of some lymph-glands is the indispensable condition. At the time of the Denver meeting I was assured by several of the local oculists that this form of trouble was comparatively rare in Colorado, just as tuberculosis is.

I also mentioned a number of accessory conditions, which could not, however, be called causes. I fully agree with Dr. Lautenbach on the importance of treating adenoids, which are present in a large majority of cases, but these are in themselves suspicious of the existence of tuberculosis in the body; just as these forms of keratitis, though not due to the presence of the tubercle bacillus in the eye, depend in my judgment on the existence of some focus in the body for the elaboration of the poison. As to the question of disturbed digestion, I did not touch on that because I did not intend to discuss all the phases of the treatment. I am of the opinion that the deranged digestion is often but an expression of the hidden tuberculous diathesis.

As regards treatment, Dr. Randolph's question about the use of atropin is answered in my paper. I do use it in phlyctenular and scrofulous troubles, provided the injection is not strictly localized, but diffuse, and provided the lesion is deeply situated in the cornea, and I do not continue it if the reaction of the pupil to atropin is very prompt. I did not refer to ulcers at all, and do not feel called upon to answer any of the discussion regarding them. The ulcer is a secondary occurrence, probably due to secondary infection, and is not specific. I was asked if I used local treatment. I have been in the habit of following out all the treatment laid down in the text-books, sometimes with good, sometimes with indifferent results. I used the sodium salicylate in the cases not amenable to local treatment and hygienic care. When we get a papular tumefaction at the corneoscleral margin it may last weeks and months, and it requires every effort on the part of the oculist to combat the suffering of the patient and to end the disease as quickly as possible, and for this purpose I recommend sodium salicylate. I would not think of using it in transient cases, nor until the local treatment had been fully tested Phlyctenules will usually take care of themselves in a few days without any treatment.

VOLUNTARY notification of phthisis to the health authorities of Plymouth, Eng., is rewarded by a fee to the medical practitioner of a half-crown in case of private patients, and one shilling in case of parish or dispensary patients.

FRACTURE AND DISLOCATION OF THE SPINE.

WITH REPORT OF CASE OF GUNSHOT WOUND OF THE SPINE.*

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CINCINNATI, OHIO.

Gunshot wounds of the spine in which the bullet entered from the abdominal surface are of sufficient rarity and the results attending their operative treatment are of sufficient interest to justify the report of the following case:

"Mrs. X., seen on March 13, 1896, presented a pistol wound 2, 1896. On February 26, 1896, the patient was shot in the abdomen with a 38-caliber Smith & Wesson revolver, fired at close range. Immediately after the injury the patient sank to the ground, vomited blood, but did not lose consciousness. It was very soon noticed that she had lost both sensation and motion in the lower extremities and that there was retention of urine and feces. At the time of the injury the patient was six months pregnant. She aborted next day and did not menstruate after that. Dr. Cartledge, of Louisville, who saw the patient about two weeks after the injury, has kindly furnished me with the following data:

"Mrs. X., seen on March 13, 1896, presented a pistol wound in the epigastric region, about two inches below the ensiform cartilage, and three-quarters of an inch to the left of the median line. There was a history of a vomiting of blood within a short time after the injury, also immediate and total paralysis below a point corresponding posteriorly to the shot wound on the anterior surface. The general condition was fairly good. The abdominal wound displayed nothing more than the signs of a slight localized peritonitis of traumatic origin."

In a short time extensive bed-sores had developed at the points of pressure, and great pain was experienced in the upper half of the body, radiating toward the shoulders. Morphia was administered to relieve this pain, in such increasing doses as to beget the habit, so that at the time of entrance, the patient was taking twenty grains hypodermatically per diem. On July 5, 1896, I saw her for the first time, in consultation with Dr. J. T. Whittaker. I found the patient an exceedingly delicate, nervous woman, greatly emaciated, with a drawn expression of countenance. The urine was being drawn with a catheter, was strongly decomposed, and there was undoubtedly a severe mucopurulent cystitis present. She had no evacuations of the bowels except such as were produced by glycerin enemata. On the anterior surface of the abdomen, two inches below the tip of the ensiform cartilage, and three fourths of an inch to the left of the median line, was found a cicatrix marking the point of entrance of the ball. Powder-marks were about the scar showing the short range at which the pistol was fired. At all points of pressure, over the sacrum, the trochanters, the inner surface of the knees and ankles, extensive bed-sores had developed. In some places the bone was denuded. The edges were livid, the discharge was copious, and there was no sign of healthy granulation. There was complete motor paralysis of both lower extremities, spastic contracture of the flexors of the leg and adductors of the thighs. Sensory paralysis extended to the level of the ninth dorsal vertebra posteriorly on the right side and to the eighth dorsal on the left side; anteriorly to free border of the ribs. There was no response to the faradic current on the part of the muscles of the leg. Patellar tendon reflexes were absent. The patient was evidently becoming septicemic. She had had chills during the past week and the temperature ranged from 99 in the morning to 102 in the afternoon. With this history there could be no doubt that the bullet had pierced both walls of the stomach, had passed into the spinal column, and had either divided the cord or was interfering with its function by pressure. Three attempts were made to exactly locate the ball with the Roentgen rays. On July 20, a negative was obtained which showed a dark spot in the spinal column on the left side, and on a level with the ninth dorsal vertebra. This was evidently not the bullet, since this would have made a slight shadow on the negative, but taken in conjunction with the extent of the paralysis, the point of entrance of the ball, and the fact that the stomach had been pierced, I felt that this dark spot was due to the destruction of bone at this point. The question that presented itself was the advisability of operating. The sudden and complete paraplegia, the absence of reaction to the faradic current and the extensive trophic changes seemed to indicate irreparable damage to the cord. Yet all of these might be caused by pressure, the relief of which would perhaps result in restoration of function. The patient was rapidly succumbing to septicemia, the case was otherwise hopeless, and at the earnest solicitation of the patient and her family, I decided to operate. She had developed on the anterior surface of the chest and abdomen a dermatitis from the effect of the X-rays. On July 21, 1896, the patient was anesthetized and laminectomy performed. I removed the vertebral arches of the eighth, ninth and tenth dorsal vertebræ. The dura was found to be uninjured; the cord felt soft to the touch. The dura was opened and the cord examined. The vessels of the pia were dilated, the cord soft and seemingly atrophic. There were no signs of a scar. The dura was then temporarily closed with forceps, loosened from its attachments to the canal, and the theca and cord drawn to one side. On passing the finger up and down along the anterior wall of the spinal canal, the conical point of the bullet could be felt projecting into the canal about one-third of its length, the other two-thirds being imbedded in the body of the ninth dorsal vertebra, a little to the left of the median line. On either side of the bullet was a spicule of bone projecting into the canal. The anterior surface of the theca was seemingly uninjured. The dura and cord were held aside, the bullet dislodged and extracted, and the displaced pieces of bone also removed. The theca was not sutured, the muscles and skin were drawn together by silkworm sutures and a strand of silkworm gut placed in the wound for drainage. The first dressing was removed on the seventh day. Primary union with the exception of two stitch-hole abscesses was found; union was complete at the end of eighteen days. On July 31, six days after the operation, the skin reflexes were marked, the knee-jerks still absent. The constipation was much relieved, the fever had disappeared. The sensory and motor paralysis and the retention of urine were as before. The pain was much diminished and the daily dose of morphia had been reduced to three grains. On August 22, the operation wound having completely healed and the bed-sores remaining unchanged, the patient was placed in a permanent bath. It was hoped that thus by relieving all pressure and by the continual cleansing of the sores they might heal. Fever was absent. September 10 the patient was still in the bath; the bed-sores were healing nicely. The X-ray dermatitis, which had resisted other treatment, had subsided. Patellar tendon reflexes were present on both sides. The skin reflexes were marked, This condition continued until October 6, and the patient was removed from the bath. The bed-sores had filled up and some of them were covered with epidermis. October 10 she had a chill, and the temperature in the evening went to 102. The cystitis was increasing in severity. October 20 the right leg was edematous, probably due to thrombosis of the vein. The sepsis was increasing. November 24 death resulted, probably from pyemia. An autopsy was not obtained.

There are several points of interest in the case, the discussion of which may be of some benefit. In the first place, the recovery of the gunshot wound of the stomach speaks much for conservative treatment in such cases. The recovery was probably largely due to the fact that the organ was empty at the time of the injury.

There is no injury which the surgeon is called upon to treat that is a source of so much solicitude and difficulty, both to himself and the attendants, as a fracture or dislocation of the spine accompanied by injury to the cord. We have all of us seen the picture of a once strong man dying by inches of sepsis from a paralyzed and infected bladder and from suppurating bed-sores that laid bare the bones of the pelvis. He lies there on his bed

*Read before the Cincinnati Academy of Medicine.

of suffering, a helpless and hopeless paralytic, a burden to himself, his loved ones, and his physician.

The difficulties begin at the very inception. A careless movement in carrying the patient to his home may produce a very disastrous laceration of the cord. He must be moved with the very greatest care. For the same reason, all diagnostic manipulation must be interdicted. The diagnosis can usually be made from the history, inspection and the extent of the paralysis. The very greatest care is rarely successful in preventing extensive bed-sores. The most scrupulously aseptic catheterization will rarely prevent a disastrous cystitis.

But all of these complications are only symptoms. The grand question that presents itself is: Can not something to be done to restore the function of the cord, destroyed or interrupted by the injury? The surgical measures for the relief of this condition are of two kinds. The one, non-operative, consists of extension and contraextension, with the hope of reducing the deformity and relieving pressure on the cord. The other is an operative procedure, which has for its object the removal of the spinal arches at the site of the lesion, the inspection of the contents of the spinal canal, and the removal of any pieces of bone, foreign body, or blood-clot, which may be impinging upon the cord.

Much can not be said in favor of the non-operative procedure. Extension can do very little good, and may do a great deal of harm. A piece of bone that is not impinging may, by the movements of extension, be driven into the spinal marrow. On the other hand, it is purely a matter of accident whether or not a fragment that is causing compression may be drawn out of the way. One can never tell whether good or harm will be done by extension. Further, the extension can not be maintained, because the pressure of any apparatus or jacket upon the paralyzed parts is attended with destructive decubitus. It is very probable that the results that have been ascribed to extension would have also been obtained in those cases by rest in bed.

To my mind, extension is attended with too great risk to be recommended as a routine practice. On the other hand, the operative treatment is also a debatable procedure, and in taking up this question it is wise at the outset to consider the various lesions of the cord that may be brought about by these spinal injuries. One of three conditions may be present.

1. The spinal cord may have been completely divided; or it may have been crushed in such a manner that while there has been no actual division, a portion of the cord has been transformed into a disorganized pulp. In many of these cases, after producing this damage, the displaced bones return to nearly their normal position, so that there is little, if any, appreciable narrowing of the spinal canal.

2. The cord may be compressed by displaced fragments of bone or foreign body, the destructive lesion being of minor importance.

3. Pressure on the cord may be due to hemorrhage.

Where the condition is largely due to pressure, either by bone, foreign body or blood, the results following the early relief of this pressure will probably be very favorable. The mass of evidence goes to show that cord tissue once destroyed is never regenerated. But it is very difficult to determine beforehand in a given case how much tissue has been destroyed and how much of the functional disturbance may be relieved by the removal of pressure. Immediate and continuous paralysis has been held to indicate, as a rule, irreparable injury to the cord, either by severance or pulpification. Yet there are a few fortunate exceptions to this rule reported which still leave sufficient justification for operative procedure in these cases. Schede[1] reported a fracture of the fifth and sixth dorsal vertebræ followed by complete sensory and motor paralysis of both lower extremities, with absence of patellar reflex on both sides and the development of bed-sores the next day. Sixteen hours after the injury he operated, and found the dura uninjured and the cord soft and pulpy to the touch. He removed the fragments of bone found pressing on the cord and left the theca unopened. Two days after the operation the patient's condition had improved. The patellar and superficial reflexes had returned, and there was no ankle-clonus on the right side. At the time of the report the bladder and rectum were normal, the paralysis had disappeared and the patient walked without support.

Hammond and Phelps[2] report a similar case of fracture of the twelfth dorsal vertebra, with paraplegia, absence of patellar and plantar reflexes on both sides and of the cremasteric reflex on the left side. The operation was performed nearly two years after the injury, and two months later the patient walked without the aid of crutches.

While there is no evidence which proves that regeneration of the nervous elements of the cord occurs after total destruction, it must be borne in mind that every trauma produces areas of different degrees of injury to the parts involved. In addition to the elements that have been totally destroyed there must be such as have been injured, but not beyond repair. Such partial injury will result in complete death if the offending body be not removed, or perhaps in recovery if the relief from pressure restore the normal circulation, and if the further injury be prevented by the removal of the body in question. I believe this to be a very important consideration, and one that has for its logical sequence, not only the operative procedure, but also that this be done as soon after the injury as possible. If the offending piece of bone, bullet or blood-clot be allowed to remain, very grave secondary conditions may occur in portions of the cord that at the time of the injury may not have been irreparably damaged. These secondary changes, that are known under the term of compression myelitis, may set in very rapidly. They have been recognized as early as the fourth day. They lead to further destruction of the nervous elements of the cord, which are replaced by connective tissue. When this has occurred, restoration is, of course, impossible. There is no tissue that is so susceptible to circulatory disturbances as the spinal cord.

In recent years clinical evidence has been accumulating which goes to prove that operative procedure for injury to the spinal cord should be undertaken as early as possible. The old expectant plan of treatment holds out but little hope. In some cases pressure symptoms have subsided after a few weeks in bed, and the patient's condition had been somewhat improved.

And yet we can not say that even these patients would have been injured by an operation. The improvement might have been accelerated and increased thereby. The operation, per se, with the modern aseptic methods is not a dangerous one, while the advantages following the early removal of compression are manifest. I sincerely believe that unless considerable and continuous improvement sets in very soon after the injury, the greatest hope for the patient lies in an early operation.

In the following case very gratifying results followed the operation for relief of pressure.

1. Annals of Surgery, vol. xvi, p. 221.
2. Journal of Nervous and Mental Diseases, 1893, p. 478.

C. A. F., male, aged 35, admitted to Military Hospital, No. 2, Havana, Cuba, April 13, 1899 at 12 m. About two hours before admission he had fallen down a shaft a distance of about twenty feet. He did not recall exactly how he alighted. Immediately after the accident he was unable to stand, and complained of pain in the back and abdomen, especially when moved.

Examination revealed minor bruises about the body, motor paralysis of both the lower extremities. The power of internal rotation of the thighs was retained; he had control of the abdominal muscles.

Patellar, plantar and cremasteric reflexes were absent on both sides. The abdominal reflexes were present but apparently diminished. The bladder and rectum were paralyzed; there was retention of both urine and feces.

Analgesia of the legs and feet extended up to the knee. In this area, however, he had still the sense of pressure, but a loss of the sensation of heat and cold.

The next day the conditions were unchanged, and in addition he complained of considerable pain, girdle in character, in the back and lower abdomen.

On April 16 I was able to test the muscles of the leg with a faradic current and obtained some reaction. Galvanic tests were impossible. There had been no movement of the bowels since admission and no voluntary evacuation of the bladder. At 3 p.m., April 16, about seventy-seven hours after the injury, the operation of laminectomy was performed. The arches of the twelfth dorsal and first lumbar vertebræ were removed. The arch of the twelfth dorsal vertebra was found pressure upon the cord. There had evidently been a dislocation of the twelfth dorsal forward, with perhaps a fracture of the first lumbar, so that the cord was pressed between the body of the first lumbar and the arch of the twelfth dorsal vertebra.

The dura mater was not opened. There was no apparent hemorrhage, the cord being quite firm to the touch, with no perceptible injury. Six days after the operation he passed his urine voluntarily, and had a voluntary movement of the bowels. Three bed-sores about the size of a silver dollar had developed over the sacrum and tuberosities. On the 26th a considerable increase in muscular power was noticed; he could flex the thighs on the abdomen, and the leg on the thigh. The wound had healed by primary union. From this time on his condition constantly improved, the motor control of his lower extremities gradually increasing in extent and power. The extent of the analgesia had markedly diminished. On May 6, 1899, the patient was discharged from the hospital and took passage on board the steamer to return to Lancaster, Pa. His condition on the date of discharge was as folows:

Evacuation of the bowels was regular and under full control; micturition was voluntary, and under control; there was a slight cystitis present. There was analgesia extending over both feet and ankles and reaching half-way to the knee.

He had flexion, extension, adduction and abduction of the thighs, flexion and extension of both knees, and some slight extension of both toes on the right side, otherwise the muscles below the knee were paralyzed. There was no voluntary motion of the ankle-joint.

The knee-jerks were present, as well as the cremasteric and abdominal reflexes. There was no ankle-clonus. The three bed-sores had very much diminished in size and were covered with healthy granulation.

On Nov. 5, 1899, I received a letter from him, from Lancaster, Pa., in which he stated that his condition was very good. His bed-sores had entirely healed, the cystitis had almost disappeared, and, by means of two canes, he was able to get about. For the past three months he had been able to suport himself and his family, as a cigar-maker. He had full control of his bladder and rectum. He can flex and extend the knees and the toes.

Sick and Wounded in China.—Most complete arrangements have been made for the care of the sick and wounded in the Chinese campaign. Abundant medical stores, supplies, hospital tents and stoves have been provided. As, on account of the nature of the situation, a general hospital would be impracticable, a suitable field hospital will be established close to the field of active operations. Major-Surgeon John Van R. Hoff, U. S. A., will be placed in charge of this hospital. He is now on his way from Porto Rico to his new post of duty.

ANGINA PECTORIS.*

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While the use of the Greek prefix "pseudo," or its English equivalent "false" in medical nomenclature is at times a matter of convenience, it may become a source of confusion or misunderstanding. This is exemplified in the use of the term "pseudo-angina pectoris."

Although the question of the pathology of angina pectoris is not definitely settled, it seems not unreasonable to attribute the symptoms of the affection to derangement in the function of the cardiac plexus of nerves, usually induced through interference with the circulation in the coronary arteries, or through disease of the myocardium.

In addition, however, to cases in which such vascular or myocardial disease is present, there are other cases in which similar symptoms arise, in the absence of appreciable organic disease referable to the heart. To this latter condition, the designation "pseudo-angina pectoris" has been applied, and among the etiologic factors, toxic and neurotic states have especially been mentioned. It seems more logical, however, to include both sets of cases in the same group, even though they differ in intensity, clinically, as well as pathologically, and it were, perhaps, better to distinguish them rather as mild and severe, than as false and true.

We have here an illustration of the difficulty of attempting a distinction between organic and so-called functional disease. It is difficult to conceive of derangement of function without alteration in structure. Functional activity must itself be looked upon as an expression of metabolic activity, and aberration of the former would accordingly bespeak deviation of the latter from the normal. Disorder of function may, therefore, be referred to influences varying in degree from impalpable nutritional disturbance to gross organic lesion. Between these extremes there may be all gradations. It can further be understood that long-continued or frequently repeated nutritional disturbance may lead to structural and ultimately to organic disease.

Of the several explanations that have been proposed for the occurrence of the symptoms of angina pectoris, viz.: That these are due to neuralgia of the cardiac nerves, spasm of the heart-muscle, stretching of the ventricular wall, and anemia of the myocardium, it is not impossible that each or even all have some share in their causation. In this way the paroxysm may be induced by organic disease, or by spasm of the coronary arteries, or of the muscular wall of the heart, acute dilatation and toxic states, singly or in association.

The essential features of angina pectoris are its paroxysmal occurrence, the presence of intense precordial pain and a sense of anguish and impending dissolution. Those who undertake to maintain a distinction between true and false angina pectoris, consider a fatal issue an additional feature; but in this connection it is worthy of mention that there may be grave disease of the coronary arteries and myocardium, even terminating fatally, without symptoms of angina pectoris, and, conversely, it does not seem extravagant to believe that angina pectoris may exist in the absence of gross or appreciable changes in the vessels or the heart-muscle. The element of death further, would hardly be a safe criterion, inasmuch as it can scarcely be attributed to the attack of angina pectoris itself, but is rather to be ascribed to

*Read before the Section on General Medicine of the College of Physicians of Philadelphia, May 14, 1900.

the fundamental disease of the vessels or the heart-muscle, and it would occur only when this is present.

True, or severe, angina pectoris is said to occur principally after the fiftieth year of life. Of forty cases referred to by Osler in his admirable monograph, only four were under forty (one at thirty and one at thirty-two), the average age being fifty-three. He adds that cases are reported in young individuals, even in children; but then almost invariably in association with chronic valvular disease or adherent pericardium. The cases of mild, or so-called false, angina pectoris, it is admitted, may occur at any age, and even in early life.

Osler in his text-book tabulates as follows the points of differentiation between true angina and pseudo-angina.

TRUE ANGINA.	PSEUDO-ANGINA.
Most common between the ages of 40 and 50 years.	At every age, even 6 years.
Most common in men.	Most common in women.
Attacks brought on by exertion.	Attacks spontaneous.
Attacks rarely periodic or nocturnal.	Often periodic and nocturnal.
Not associated with other symptoms.	Associated with nervous symptoms.
Vasomotor form rare.	Vasomotor form common.
Agonizing pain and sensation of compression by a vise.	Pain less severe; sensation of distension.
Pain of short duration.	Pain lasts one or two hours.
Attitude: silence, immobility.	Agitation and activity.
Lesions: sclerosis of coronary artery.	Neuralgia of nerves and cardiac plexus.
Prognosis grave, often fatal.	Never fatal.
Arterial medication.	Antineuralgic medication.

These differences depend largely upon the character of the respective underlying pathologic processes, but herein does not seem to reside sufficient reason for separating the two groups of cases entirely. Neuralgia may be purely a neurosis, or it may result from nerve-lesions, traumatic and inflammatory, neoplastic, etc. A similar conception appears not inapplicable also to angina pectoris.

I beg to report a case that I believe to be one of true or severe angina pectoris occurring in a young man 30 years of age and unattended with organic disease of the heart or vessels.

G. G., aged 30, a nurse, was received into the Polyclinic Hospital on September 12, 1899, suffering from sharp, knife-like pain, extending from the heart to the left shoulder, and down the left arm. The attack had set in while the patient was riding in a street-car after a day of hard work. No physical abnormity whatever was detected, and pulse, respiration and temperature exhibited no noteworthy deviation from the normal. The family history was insignificant, except that the maternal grandfather had died from an apoplectic seizure. The patient himself had had scarlet fever, measles, and mumps, and was rather delicate as a child. I believe he was not addicted to the excessive use of tea, coffee, tobacco or alcohol. He had suffered from rheumatic pains and swelling in the knees and ankles for several successive springs. Two years previously, following an attack of rheumatism, he was seized with the first of a series of paroxysms like the present. The second attack occurred seven months later; and others had taken place at intervals of six months. Each attack had begun with a severe paroxysm, and was attended for twelve hours afterward with a number of lesser severity, followed by a period of collapse for about a week. The attacks usually came on after over-work or excitement. This history was essentially repeated while the patient was under observation in the hospital, several paroxysms occurring, though none so severe as the first. The treatment consisted in the administration of amyl nitrate in pearls by inhalation, hypodermic injection of morphin, the administration of nitroglycerin internally, and applications of heat and counter-irritation to the precordium. Subsequently strychnin and atropin were also given, and the patient was discharged after the lapse of ten days, quite restored to his usual condition.

As already stated, I have little doubt that this case is one of true angina pectoris, although no evidence of organic disease of the heart or the vessels could be made out. It is, however, not impossible that, as a result of the earlier attacks of rheumatism, insidious changes had been set up in the myocardium or the coronary arteries, to which the conditions present are to be attributed.

Therapeutics.

Treatment of Hay-Fever.

In his article on Hay-Fever, in the "Twentieth Century Practice of Medicine," Dr. E. F. Ingals speaks of the importance of observing the following things in the management and treatment: 1. The condition of the constitution predisposing to the attack, such as a rheumatic or gouty diathesis or disturbance of the stomach or bowels. 2. The neurotic tendency. 3. The hyperesthetic mucous membrane.

The constitutional treatment especially should precede the usual time of the attack at least one month or six weeks.

The following prescriptions are based on the outline given above:

℞ Liquoris potassii arsenitis ..... ℥i 4
Tinct. nucis vomicæ ..... ℥ii 8
Tinct. gentianæ compositæ, q. s. ad ..... ℥iii 96
M. Sig. One teaspoonful after each meal in water.

℞ Sodii arsenatis ..... gr. i 06
Ext. nucis vomicæ ..... gr. viiss 5
Ferri sulphatis ..... gr. xlv 3
Sodii carbonatis ..... gr. xlv 3
M. Ft. capsulæ No. xxx. Sig. One capsule after each meal three times a day.

℞ Quininæ hydrobromatis ..... gr. xxx 2
Sparteinæ sulphatis ..... gr. viiss 5
Ext. hyoscyami ..... gr. x 66
Pulv. camphoræ ..... gr. xxx 2
M. Ft. capsulæ No. xxx. Sig. One capsule every four hours.

℞ Liquoris sodii arsenatis ..... ℥i 32
Tinct. belladonnæ ..... ℥i 4
M. Sig. Five drops in water after meals, as a prophylactic measure.

℞ Zinci valerianatis ..... gr. iii 18
Asafœtidæ ..... ℥iss 6
M. Ft. capsulæ No. xxiv. Sig. One capsule after each meal.

℞ Syrupi acidi hydriodici ..... ℥iii 96
Sig. One teaspoonful after each meal three times a day.

This preparation is beneficial when there is a history of a rheumatic diathesis. If necessary this could be given alternately with some one of the above prescriptions.

℞ Liquoris potassii arsenitis ..... ℥i 4
Potassii iodidi ..... ℥iss 6
Vini pepsini, q. s. ad ..... ℥iii 96
M. Sig. One teaspoonful in water three times a day.

This combination is of value as a prophylactic measure and during the attack in rheumatic patients.

℞ Brucinæ phosphatis ..... gr. iii 18
Ext. hyoscyami ..... gr. xv 1
Quininæ valerianatis ..... ℥i 4
Camphoræ ..... gr. xxx 2
M. Ft. capsulæ No. xxx. Sig. One capsule four times a day.

Dr. E. Fletcher Ingals recommends the above prescription, which in his experience has seemed the most beneficial in warding off the attacks. He also states that this combination is not only advantageous in delaying or preventing an attack, but it seems to be of much value in mitigating the patient's suffering during its progress.

Brucin, as is well known, is one of the alkaloids of nux vomica and, as compared with strychnin, is less bitter, slower in its action and twelve times weaker.

℞ Ext. nucis vomicæ ..... gr. viiss 50
Ext. hyoscyami ..... gr. x 66
Salopheni ..... ℥ii 8
M. Ft. capsulæ No. xxx. Sig. One capsule four times a day.

Salophen is used a great deal as a substitute for salol in order to avoid the direct liberation of phenol in the intestinal tract, as salophen is split up in the intestine into salicylic acid and acetyl-p-amidophenol. It can be substituted for salol in cases with a rheumatic diathesis.

FOR RELIEF OF SUBJECTIVE SYMPTOMS.

The following prescriptions are for the purpose of relieving the subjective symptoms:

℞. Antipyrini 3iii 12
Syrupi aurantii corticis.....℥i 32
Aquæ destil., q. s. ad.....℥iii 96
M. Sig. One teaspoonful three times a day during the attack early in the disease.

℞. Pulveris morphinæ compositi.....3i 4
Ft. capsulæ No. vi. Sig. One capsule as required for the relief of the dyspnea.

This powder contains morphin sulphate, 1 part, camphor, 19 parts, and licorice and calcium carbonate, 20 parts each, consequently ten grains of the powder contains 1/6 grain of morphin, hence the necessary precautions in its administration.

℞. Chloralis hydratis 3ii 8
Elixiris ammonii valerianatis.....℥iii 96
M. Sig. One teaspoonful in water every four or five hours to relieve the attacks of dyspnea.

℞. Acidi boracici.....gr. xv 1
Aquæ camphoræ, q. s. ad.....℥i 32
M. Sig. To relieve the itching of the conjunctivæ, by local application.

Or,

℞. Sodii biboratis.....gr. viiss 5
Aquæ camphoræ.....℥i 32
M. Sig. Bathe the eyes as often as necessary and drop one or two drops in the eye every three hours.

℞. Acidi boracici
Sodii bicarbonatis, ää.....3ii 8
Acidi carbolici.....gr. xxiv 1 5
Aquæ destil .....Oi 512
M. Sig. Use as a spray locally, to thoroughly cleanse the mucous membranes of the nose and pharynx.

The necessity of keeping these membranes clean is the one point dwelt upon by those who have written at length on the treatment of this disease; preventing, as it does, the foreign irritants from coming in contact with the membranes.

℞. Quininæ muriatis.....gr. viiss 5
Aquæ destil.....℥i 32
M. Sig. Apply to the nares with a swab, three or four times a day.

℞. Adrenals (desiccated).....3i 4
Acidi borici.....gr. xvi 1
Aquæ cinnamomi.....3iv 16
Aquæ camphoræ (hot).....℥i 32
Aquæ destil. (hot), q. s. ad.....℥ii 64
M. Macerate for four hours, then filter. Sig. Use as a spray in the nares.

The value of this preparation has already been dwelt upon in a previous number of THE JOURNAL, but we find it necessary to speak of it again in this connection as being invaluable in treatment of hay-fever. When locally applied it produces marked and prompt contraction of the arterioles of the mucous surfaces.

℞. Tablets pulv. adrenals (desiccated) ää..gr. v 33
No. xxiv. Sig. One tablet four times a day, allowing it to dissolve in the mouth.

Solis-Cohen, a sufferer from hay-fever for twenty years, found great relief during an attack by taking the preparation in this way. It not only contracts the arterioles but acts as a tonic to the heart.

℞. Cocainæ hydrochloratis
Thymol, ää.....gr. iii 18
Bismuthi subcarbonatis.....℥ii 64
Vaselini .....℥i 32
M. Sig. Apply locally to the nares once or twice a day with an applicator.

℞. Menthol .....gr. vi 36
Bismuthi salicylatis
Sacchari lactis, ää.....gr. lxv 4 30
M. Sig. A small quantity to be insufflated into the nares two or three times a day.

℞. Thymol .....gr. 1/4 015
Ol. caryophylli.....m.ii 12
Cocainæ hydrochloratis.....gr. iii 18
Liquid albolene.....℥i 32
M. Sig. To be used as a spray five or six times a day.

This prescription must not be repeated by the druggist nor placed in the hands of the patient to be refilled at will.

℞. Acidi boracici.....gr. xxx 2
Sodii salicyl.....gr. xxxviii 2 5
Cocainæ muriatis.....gr. iss 09
M. Sig. To be insufflated into the nostrils.

This powder will generally give relief to the patient during the height of the attack, but it should be made up under the supervision of the physician, and it is especially important that no prescription be given to the patient for it. Not more than one-fourth of this powder should be used daily, and this should not be long continued. Powders are most conveniently applied by the patient himself, with a small glass tube about four inches in length and 1/8-inch in caliber, one end of which has been slightly flattened, the other end being attached to a rubber tube about ten inches long. Placing the required amount of powder in the round end, pass the rubber tube over it, insert the flat end in the nares and blow quickly through the tube.

℞. Orthoformi 3iv 16
Sig. To be used by insufflation three or four times a day.

Litchwitz reports good results from the use of this preparation.

Orthoform is a white tasteless powder, non-toxic, and is antiseptic and anesthetic when locally applied.

℞. Codeinæ .....gr. ss 03
Potassii bromidi.....gr. x 66
Chloralis hydratis.....gr x 66
Syrupi grindeliæ robustæ.....3ii 8
M. Sig. At one dose, to be repeated in one hour unless relief is sooner obtained. —*Ingals.*

℞. Hydrozone .....℥i 32
Aquæ destil.....℥xii 384
M. Sig. Four times daily as a nasal douche, beginning two weeks previous to the usual time of the attack.

℞. Resorcini .....gr. x 66
Aquæ destil., q. s. ad.....℥ii 64
M. Sig. Use as a spray two or three times a day.
—*Hare.*

Resorcin is obtained by fusing many resins with potash. It is a phenol and closely allied to carbolic acid, but is odorless, more soluble and non-irritant. It is said to be equally as powerful as carbolic acid as an antiseptic. It is neutral in action, and is generally prescribed in solutions of 2 per cent. strength when locally applied or in the form of a spray.

℞. Menthol .....gr. i 06
Acidi carbolici.....m.i 06
Ol. gaultheriæ .....m.i 06
Liq. albolene, q. s. ad.....℥i 32
M. Sig. Use as a spray three or four times a day.

In this prescription the ingredients can be used in somewhat greater strength if necessary. But in the use of sprays excessive irritation should be avoided, and if the mucous membranes smart for more than two or three minutes the strength of the oily sprays should be reduced, or in some cases entirely substituted by sprays of aqueous solutions.

Roe, of Rochester, reports remarkable success in curing hay-fever by cauterizing the hyperesthetic areas at different times.

Dietetic Treatment of Diabetes Mellitus.

In the treatment of diabetes mellitus Külz recommends the administration of a sufficient diet composed of albuminous and fatty food, and then to add to this, after trial in each case, such articles of carbohydrate food, in definite amounts, as the patient shows himself able to assimilate. The following is an example of the strict diet:

Breakfast at 8 a.m.—2 cups of coffee, yolk of egg, 2 tablespoonfuls of cream, 2 eggs, 150 grams (5 ounces) of ham, 50 grams of cheese, 10 grams of butter.

Second Breakfast—1 cup of bouillon, 2 yolks of eggs, 200 grams of roast beef, 30 grams of cheese, 10 grams of butter.

Dinner—1 cup of bouillon with yolk of egg, 100 grams of salmon, 15 grams of butter, 200 grams of sirloin, with 20

grams of butter sauce, spinach-salad with oil, 30 grams of curds with butter, 1 cup of coffee, 2 tablespoonfuls of cream, 1 cup of tea, 2 eggs.

To this 1 liter of wine and 30 grams of cognac are to be added.

Cacodylates in Chorea.

Garand has found rectal injections of sodium cacodylate extremely effective in rebellious cases of chorea. The dose was 5 c.c. of a .5 per 200 solution daily for five days, then twice in five days, and then three times, suspending for five days and recommencing. By the end of the month all the children were cured. There were no after-effects nor intolerance in the three cases. Luigi recommends salicylic medication by the skin in cases with rheumatic antecedents, supplementary to internal medication.

Medicolegal.

Experiments as Evidence.—The Supreme Court of Utah holds, in the case of Konold vs. the Rio Grande Western Railway Company, that experiments are not competent as evidence unless the conditions under which they are made are the same, or approximately the same, as those which attended the event in regard to which the experiments are made. And, the admissibility of such evidence being discretionary with the trial judge, his decision, it says, will not be reviewed, except in case of a palpable abuse of such discretion.

Board of Health Can Not Authorize Nuisance.—The third appellate division of the Supreme Court of New York says, in the case of Mann vs. Willey, that it can find no statute, nor rule of law, which confers upon a board of health the right to authorize one citizen to create and maintain a nuisance to the injury of another. Here the defendant was seeking to justify the discharging of the sewage of a summer hotel into a stream by reason of an order of the board of health of the town in which the hotel was situated. Such board, the court says, may have had authority to prevent him from maintaining cesspools, but it could not have compelled him to sewer into the stream.

Worry as a Ground for Damages.—The rule is well established, says the second appellate division of the Supreme Court of New York, that when the injury to an intelligent being, caused either by wilfulness or by negligence, produces mental as well as bodily anguish and suffering, independently of any extraneous consideration or cause, it is imposible to exclude the mental suffering in estimating the extent of the personal injury for which compensation is to be awarded. And worry being an element of mental suffering, it holds, in the case of Webb vs. the Yonkers Railroad Company, that it is competent to show the worry over an injury where the mental suffering resulting therefrom is a proper element of damage.

Not Evidence of Injury to Married Woman.—In order to prove the internal injuries which she alleged that she had suffered through the defendant's negligence, the plaintiff, in the case of Sweeny vs. the Union Railway Company of New York City, called as a witness a physician who testified as to her physical condition on a date more than two years after the accident. In the meantime she had given birth to two children. The physician who had attended her found no internal injuries whatever. The one here called as a witness testified as to certain injuries to the genital organs, which were wholly unconnected, so far as the evidence showed, with the accident two years before, but which might naturally have resulted from one or the other of the two intervening confinements. Such evidence, the appellate term of the Supreme Court of New York holds, had no place in the case, and it was error to admit it over the defendant's objection.

Validity of Release of Claims for Injuries.—The Supreme Court of Kansas holds that if a passenger who is negligently injured in a railroad wreck is at once treated by a physician of the railroad company, and hours after the injury, and while nervous, weak and sick, is again visited by the physician and the claim agent of the company, and, by false and fraudulent representations of the physician that his injuries are slight and temporary, is induced to execute a release of all claims for damages for a trifling amount, he will not be bound by such release. On the other hand, if the release is fairly obtained and understandingly executed, it will, the court holds, in Missouri Pacific Railway Company vs. Goodholm, constitute an effectual bar to a recovery for the injuries. To sustain a claim that the execution of such a release was induced by false and fraudulent representations, it must appear that the party who executed it relied and acted upon such representations.

Selection of Members of Boards of Health.—From an examination of the history of the legislation in the state of New York in relation to appointments of boards of health in cities, the special term of the Supreme Court of New York, Albany County, says, in re City of Rensselaer, that it seems clear that the legislature still intended by its latest statute to make the selection of the members of the boards of health the joint action of the mayor and the common council; the mayor to nominate, and the common council, in its discretion, to appoint or confirm his nomination. If the common council does not confirm or appoint the men nominated by the mayor, it goes on to say, it would seem to be the mayor's duty, in his discretion, to send in other names, and to continue sending such names until an appointee is named who will be appointed by the common council. Hence, it here denies a peremptory writ of mandamus to compel the common council and aldermen of the above city to convene and forthwith appoint the mayor's nominees as commissioners of health of said city.

Cuts Down Allowance for Injury to Knees.—A school teacher, 39 years of age, was thrown from her seat and quite severely injured by the sudden stopping of a street car on which she was a passenger; the injury sustained being a dislocation of the internal semilunar cartilage of each knee, with other injuries to her body. Commenting on her case, there is no question, says the first appellate division of the Supreme Court of New York, that her injuries were severe, and that she suffered much pain; that the effect of the injury continued over more than eighteen months up to the time of the trial, and to some extent interfered with her work, and was a constant annoyance to her; that she will never entirely recover from the injury, and will always experience more or less weakness of the knees, and difficulty in walking. But an award of $15,000 for such injuries, it holds, Kraemer vs. Metropolitan Street Railway Company, is certainly quite excessive. It maintains that $7000, in addition to the actual outlay or liability incurred by the plaintiff, would be full compensation for the injuries sustained; wherefore, it has ordered a new trial, unless the plaintiff stipulates to reduce the judgment accordingly, which would make the total amount thereof $8,836.30, instead of $15,000.

Constitutionality of Pure-Food Laws.—The Supreme Court of Ohio holds, in State vs. Capital City Dairy Company, that it is within the scope of the police power of the state to regulate the manufacture and sale of articles of food, even though the right to manufacture and sell such articles is a natural right guaranteed by the constitution. Especially does it here hold that the police power of the state is properly exercised in the prevention of deception in the sale of dairy products, holding valid a number of Ohio statutes passed for that purpose and to preserve the public health, as it is stated. And, in this connection, it particularly affirms that where the article sought to be regulated may easily be manufactured so as to be harmful, and thus result in fraud upon and injury to the public, the police power is properly exercised in the regulation of the manufacture and sale of such article by such requirements as will tend to insure the public against fraud and injury. Nor does it consider that there is any question whatever in regard to the power of the state to compel a sample for analysis of any article of food. Besides all of which, it is of practical interest, in this day of corporations, to note that it is here further held that the mere fact that the criminal laws of the state provide for the punishment, by fine, of those who offend against these pure-food laws is not a bar to a proceeding to oust a corporation engaged in violating them from the exercise of its right to be a corporation.

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FATAL OIL EMBOLISM FROM SUBCUTANEOUS INJECTION OF OLIVE-OIL—LEUBE'S METHOD.

It is known that a moderate degree of fat embolism takes place commonly after various injuries, especially fractures, and also in connection with such diseases as puerperal eclampsia. In the majority of cases this form of fat embolism is of no special significance, the fat being removed by phagocytes and absorbed in case life is present. Occasionally, however, severe injuries accompanied with much contusion and fractures give rise to such a degree of fat embolism that it becomes a direct cause of death. Experimentally, it has been found that subcutaneous injections of olive-oil may lead to fat emboli in the lungs, either by way of the lymph-vessels and the thoracic duct or perhaps on account of the puncture of a small vein. Möller has reported severe pulmonary symptoms after subcutaneous injection of mercury rubbed up with oil, and caused by perivascular pneumonic areas about minute emboli of mercury. On account of the small quantity injected—1 to 3 or 4 grams—the oil, even when inserted intravenously, probably would produce only small hemorrhagic infarcts without recognizable symptoms.

In Leube's method of subcutaneous nourishment with daily injections of olive-oil, as much as 50 to 200 c.c. are introduced at one time. Though used extensively and with good results by several authors, no evil effects from oil embolism appear to have been observed until the recent report by Fibiger[1] of death from the accidental intravenous introduction of olive-oil during its subcutaneous injection in a patient with stricture of the esophagus. Attempts at nourishing the man through the mouth and by enemas failed completely, and death from inanition seemed imminent. Daily subcutaneous injection of sterile olive-oil in doses of 150 c.c. produced marked and progressive improvement; after 19 days, when 2325 c.c. oil had been injected, a gain in weight of 4600 grams had taken place. On the twentieth day the injection was followed by the violent cerebral and respiratory symptoms characteristic of fat embolism, and death took place on the third day. There was observed a transitory, left, incomplete hemiplegia.

The post-mortem showed collections of oil in the subcutaneous tissue; the puncture from the last injection ended in a hemorrhagic infiltration about a small vein. Emboli of oil were found in practically all organs, most numerously in the lungs and in the brain. The left hemiplegia was produced by a large number of emboli in the right, cortical, motor centers. Small areas of bronchopneumonia and a serohemorrhagic exudate were found in the lungs, presumably to some extent caused by the streptococci present. In the kidney the oil had accumulated in the glomeruli. There were numerous oil droplets in the cells and in the lumens of the convoluted tubules of the second order; the urine contained fat. This fat is regarded as the result of fatty changes in the epithelial cells of the tubules, due to the anemia from the plugging of the glomerular capillaries.

Leube's subcutaneous nutritive oil injection, while a very efficacious method, consequently brings with it the danger of fatal oil embolism from the accidental puncture of small veins.

[1] Nordiskt Medicinskt Arkiv, 1900, xi, Häft 1.

NON-DIABETIC GLYCOSURIA.

Although the exact mechanism of the development of glycosuria is not known, it has become perfectly well recognized that the manifestation is merely a symptom that may be associated with any one of a number of conditions. It has perhaps been longest and best known as one of the phenomena of diabetes mellitus, and too commonly the two have been considered identical. Whether or not there may be a grave diabetes without glycosuria, as there may be a marked glycosuria without diabetes, is a question for future investigation to decide. Perhaps, too, there is a more intimate relation between diabetes mellitus and diabetes insipidus than is generally acknowledged. Sugar is not found in the urine with great frequency under ordinary conditions, either in disease or in health, although in some persons it may readily appear upon excessive indulgence in saccharine or amylaceous articles of food. Saundby, recently in a lecture considered several varieties of non-diabetic glycosuria, and cited illustrative cases. He pointed out that even in health the urine contains traces of sugar, but in amounts so small as to be beyond detection with ordinary tests. The most available test for glucose is Fehling's solution, the use of which is attended, however, with the liability of error from the presence of other copper-reducing substances, but these can be removed by repeated filtration through animal charcoal. No reaction should be considered positive unless the reduced copper appears as an orange-red precipitate. Even in health there is a limit to the power of the organism to assimilate sugar. This will naturally vary in different individuals, but for the present it has been placed at 100 or 150 grams of glucose—Saundby makes it between 300 and 500 grams of syrup of glucose. Glycosuria resulting from the ingestion of glucose in excess of the amounts indicated has been designated alimentary or physiologic, and is not considered of itself to be of evil

1. British Med. Jour., April 14, 1900.

prognostic omen, or as likely to terminate in diabetes. Saundby, however, records cases in which glucose appeared in the urine for long periods of time after the ingestion of ordinary amounts of carbohydrates, although other symptoms of diabetes were not present.

Alcohol may cause glycosuria, which may be intermittent or constant, in accordance with the operation of the etiologic factor. Disease of the liver in association with, or independent of, alcoholism, also at times gives rise to glycosuria. Diseases of the stomach may act in the same way. Saundby expresses the opinion that the last three varieties of glycosuria may have some connecting link, which, could it be discovered, might throw some light upon the true etiology of the disorder. It is thought probable that this factor consists in some derangement of one of the important organs concerned in digestion, and from the relation of the liver to sugar-production, it is not unreasonable to regard this organ as the one most likely to be at fault. It may be that, under such conditions, sudden discharges of sugar take place from the liver into the blood in quantities greater than can be used up in the body. Glycosuria occurs, further, in cases of neurasthenia, without other discoverable cause. Saundby refers, finally, to glycosuria in old persons suffering from senile decay, and unattended with other symptoms of diabetes. The appearance of sugar in the urine, under these circumstances, must be looked upon as an indication of the general tendency to break down, and the diet should not be too rigidly restricted.

In addition to the foregoing, glycosuria may result from various disturbances of the nervous system—from functional disorders to organic disease—from toxic and infectious causes, from pancreatic disease, and probably from other influences.

THE NECESSITY FOR THE ISOLATION OF CASES OF TUBERCULOSIS IN HOSPITALS.

In conformity with the guiding principles of modern hygienic requirements the two most important indications in the management of all infectious diseases are isolation and disinfection. While there is no marked dissent from this general proposition, occasionally objection is raised to its universal, and particularly its rigid, application. This is especially the case with regard to tuberculosis, in the repression of which great activity has recently been exhibited in various ways and in many places. The question as to whether isolation of tuberculous patients in hospitals is necessary is answered virtually in the negative in a recent communication by Aron[1], who points out that in justification of the demands for the erection of special hospitals and special departments for tuberculous patients attention is generally directed to the dangers to which those surrounding such individuals are exposed. Long before its cause had been discovered, tuberculosis was known to be a communicable disease, but according to those who advocate the isolation of its victims, these should be separated from other patients in the hospital who may readily become infected on account of the infectivity of the disease. This principle has, however, not been applied generally to other infectious diseases, and it is thought probably never will be rigidly applied. As from 10 to 20 per cent. of the patients in the wards of many hospitals have been tuberculous, it might be assumed that in the many years of such association the percentage of infections that could with certainty be traced to this source would be quite considerable if tuberculosis were actually as infective as has been contended by some.

As a matter of fact, the number of cases of well-authenticated house-infection reported is small. Investigation into this subject is necessarily attended with great difficulty, as the incubation-period of tuberculosis sometimes is probably exceedingly long, and the disease might develop only a long time after the patient had left the hospital. In view of the wide distribution of the disease, and the many opportunities for infection, it is not easy to decide whether a given case has originated in the hospital or elsewhere. Even in cases of apparent house-infection it is not impossible that the tuberculosis was already latent, and became excited into activity only by some other infectious disease.

Instances of hospital-infection are not so rare in physicians and nurses, but here the relations with the sick are in various ways far more intimate, and the risk of infection is naturally much greater. Even these dangers are, however, largely to be avoided by the exercise of care and cleanliness. If the tuberculous patient were so dangerous to others he would be not less so for himself, and the likelihood of recovery would be much less than there is reason to believe it to be. It is argued that if it is possible by means of suitable prophylactic measures to reduce to a minimum the risks from tuberculosis, there would be no necessity for separate establishments for such cases. Then, it is pointed out, an evil moral effect would be exerted by the association of tuberculous patients exclusively. It will thus be seen that, while there is a strong consensus, there is wanting unanimity, of opinion in favor of the segregation of tuberculous patients.

1. Berliner Klin. Woch., 1900, No. 21, p. 463.

BRITISH MEDICAL SERVICE IN THE TRANSVAAL.

The ball started by Mr. Burdett-Coutts, when he charged medical mismanagement of the South African war, as might be expected, continues to roll. It is so easy to find defects, and hardships are so common in war time that philanthropic posers can readily find pretexts for airing their virtue. In this war, which is unlike recent British wars in other respects than its magnitude, there is probably also the element of the complaining volunteer whose grumblings take the form of home letters and communications to the press. There is ample material therefore for sensational indictments, and here they seem to be focused on the medical department. In the early months of the war

nothing was too good to say; now it seems that there is nothing that is too bad, in some quarters at least. Accusations, not only of inefficiency and neglect, but also of actual cruelty, have been made and the British public is naturally stirred.

A civil surgeon correspondent of the *British Medical Journal* who, as he says, "holds no brief for the Army Medical Service," reviews in its issue of July 28 these charges and complaints. Of course vague generalities can not be dealt with, but specific charges can be met. He shows that the faults, so far as they are real and definitely stated, can be accounted for by necessarily improvised conditions, and to some extent, as in our late war, by the failure of non-medical officers to duly co-operate with the medical staff. In Bloemfontein there was for a time a scarcity of beds and of some supplies, but this was due to the demand exceeding the transportation resources and was not the fault of the medical staff. The same is true of the deficiencies in some of the field hospitals. The charges against the depot hospitals, so far as they were true, are met in detail and shown to be due to unavoidable conditions. Some are contradicted from his own knowledge. The fact is, as he says, that if perfect attendance of the sick and wounded, even at the base, is to be a *sine qua non*, "the British taxpayer must keep a permanently trained medical staff of at least six times the present number for a national emergency that may never occur again," and that as for perfection at the fighting front, no money and no organization will secure it.

Any one who has had any practical experience of the hurly-burly of active war will appreciate the justice of this last remark. War is not a picnic, and the sick and wounded are not in a situation to secure home comforts, at the best. Many a veteran of our civil war can tell of conditions that far exceeded anything in the Transvaal, or even in our late war with Spain, where the situation in Cuba was necessarily far worse than in the comparatively healthy South African region. So far as the British medical staff is concerned we believe that it has done all that its resources would permit.

THE CAPE NOME SITUATION.

The reports from Cape Nome, Alaska, do not indicate a very satisfactory sanitary condition at that point. The rush of 20,000 or more reckless gold-seekers into a region as little fitted probably for such an increase of population as can be found has raised some serious sanitary problems for the local officials and physicians. The country, excepting on the hill slopes, is a saturated sponge of moss wherever the frost has left, and, though pools and streams exist, good water is nevertheless scarce. It is easy to see what unsanitary conditions may arise under such circumstances; typhoid, intestinal disorders, etc., are very likely to be prevalent and serious epidemics are a possibility. As the season advances and the supply route by sea is closed, the food question becomes a factor, and dietetic disorders such as scurvy are likely to prevail. At all times the rheumatic virus, whatever it may be, is to be considered, and many who have never had such troubles will date them from their Alaskan experience. The most hopeful feature of the situation as reported is that the military authorities have taken hold actively and that there is therefore prospect of some sort of a local government. Without this, the outlook would certainly be bad, not merely for the present but also for the future.

ADVERTISING QUACKS AND MALPRACTICE SUITS.

A French author[1] calls attention to the serious results that sometimes follow self-treatment with quack-remedies advertised in the daily press. As a gynecologist he had occasion to observe several instances of this kind of malpractice. In one typical case a patient suffering from an incipient cancerous growth which had before been successfully removed objected to a new operation, on a slight recurrence, and had recourse to an advertised electric treatment. The result was rapid stimulation of the growth, which soon became a vast inoperable mass, and death. He suggests that the only remedy for such occurrences is to have suits instituted promptly against the advertisers of such nostrums and appliances when their disastrous effects have been experienced. Exemplary damages would soon teach quacks a lesson, their publicity would enlighten the public, and even if not fully successful their effects would still be beneficial. The law thus applied would be the best medicine for this social disease of advertising quackery. The trouble is, the victims would dislike to have recourse to such a remedy; it is easier for them to swallow the injury and save their pride than to admit that they have made fools of themselves. The *amour propre* of the average dupe is the salvation of the quacks.

THE INCREASED PREDISPOSITION TO CANCER.

In a recent number of the *London Polyclinic* occurs a critique on diet as a cause of cancer. It is claimed that the increase in cancer is real, in the main, and not wholly due to increased accuracy in diagnosis. In reference to the theory that the disease is the result of overeating, it is admitted that there has been during the last 50 years a great increase in the amount and variety of food consumed by civilized people, and particularly that the working-classes now get vastly more meat than formerly. But cancer prevails more extensively, relatively, in the upper classes, and the consumption of tea and tobacco has increased much faster than that of meats, so that conclusions can not be safely drawn from such figures. The marked immunity of the negro race is pointed out as very inconclusive, as all accurate observers agree that the negro is an enormous eater both in Africa and in America. The testimony from India is indecisive, some holding that there is more cancer there than in Europe, and others that there is less, but all agree that it affects alike the rice-eaters and the meat-eaters, and that too in a country where food tends always to be meager and where

[1] Folet: L'Echo Méd., July 15.

famine frequently prevails. The conclusion drawn from a survey of the field seems very reasonable that "increased consumption of food may possibly be a predisposing cause of cancer, in so far as it promotes survival to the cancer age, but that otherwise its relation to the increase of the disease has not yet been shown to be probable."

THE EPIDEMIOLOGY OF MALARIA.

Existing evidence leaves no room for doubt that malarial fever is conveyed by mosquitoes; but it is not impossible that, in accordance with earlier conceptions, the disease may likewise be transmitted not only by air, but also by water. Demonstration of the one mode of infection does not necessarily preclude the possibility of the others. The matter is one not solely of scientific interest, but it has a most important prophylactic bearing, inasmuch as we can not hope to prevent the disease unless we appreciate all of the sources whence it may be derived, and take the necessary steps for their suppression. From a study of the sanitary reports of two army corps garrisoned in eastern provinces of Prussia, between the years 1884 and 1888, Grawitz[1] found that the largest number of cases of malaria were observed not in the late summer and autumn, as is generally believed, but in the months of May, June and July, the number rapidly increasing up to, and as rapidly declining after, the period mentioned. This period of greatest prevalence of malaria does not, however, correspond with the period of greatest activity of mosquitoes. Further, there has been a marked decline in the number of cases of malaria among the soldiers in the Prussian army in recent years, and this has been found to correspond with the regulation of drainage, proper construction of barracks, and provision of a pure water-supply. Organisms have been found in aquatic animals resembling malarial parasites, so that it seems at least not impossible that as the malarial parasite is the intermediate aerial host, so some animal living in the water may play an analogous rôle.

A MISTAKE IN OHIO.

The news comes from Ohio that the State Board of Medical Registration and Examination has taken such action recently as to practically nullify that section of the excellent new law of the State which provides a certain minimum standard of preliminary education to be attained by those desiring to enter upon the study of medicine. A high-school diploma granted after four years of study, or its equivalent, is the minimum requirement as fixed by the statute. But, in making up its list of subjects for the first examination of prospective medical students, the Board has cut out nearly two-thirds of the studies embraced in a high-school course, and has included many branches whose completion is required of those who wish to *enter* a high school. The profession of the State is stirred up over the matter, and while nothing can now be done toward changing the requirement for the autumn examinations, it is hoped that the Board in the future will either execute the law in accordance with its plainly expressed terms, or give way to another that will. It is rumored, we hope without foundation, that it was the influence of some of the weaker medical schools, which, by reason of their probably well-founded fear of loss of students, determined the Board in its illegal reduction of the educational standard. In this connection it is also to be remembered that the Ohio Board consists of seven members, only three of whom can be regular physicians, so that the hope may be permitted, in the absence of direct information, that these three were outvoted in this matter. In any event, we trust that, in the interests of the public welfare and of medical education, the Ohio Board will see the mistake it has made, and at the earliest possible moment retrace its steps to the secure foundation of enforcing the law in accordance with its explicit provisions.

[1] Berlin. Klin. Wochenschrift, 1900, No. 24, p. 521.

A LAWYER DISBARRED.

Recently a lawyer of Chicago misappropriated—that is, appropriated to himself—twenty-seven dollars belonging to a client. For this he was sentenced to pay a fine and was "forever disbarred from practicing in the courts of Illinois." No one seems to have found fault with the verdict; the newspapers endorsed the judge, who, in rendering the verdict, said that the legal profession must be purged of those who would stoop to such dishonest and despicable acts. Neither have we any fault to find, for while it seems rather severe to take from this lawyer the right to practice his profession, his means of making a living, we can only say that he deserved the punishment. But in the newspapers which published the account of this disbarment, with approval, appeared advertisements of quack doctors. In some of these advertisements those suffering from incurable diseases are promised restoration to health; in others, old men whose eyes are growing dim with senile cataract are guaranteed perfect sight by means of internal medicines. The fears of indiscreet youths—who think they are ill but are not—are preyed on by these barnacles on the medical profession, the advertising quacks. This Chicago lawyer who was turned out of his profession for stealing twenty-seven dollars, is an angel compared to some of these. He only swindled his client out of a few paltry dollars; they not only do this but do so by preying on the afflicted, whose confidence they have obtained by false promises and by false pretences. These men write M.D. after their names; they claim to belong to a profession which certainly should be purified of its vicious adherents as much as should the legal profession. And yet, imagine the hue and cry that would be raised by the newspapers if the medical profession should attempt to purge itself of those who are using it as a cloak for dishonest acts and for swindling.

THE DIETETIC DIFFERENCES BETWEEN LIGHT AND DARK MEAT.

It has long been the custom under certain morbid conditions to exclude meat from the diet on the supposition that the products of its catabolism exert an irritating effect more particularly on the kidneys, and proscription has been made to apply especially to red

meat. Among these contraindicating conditions are the uric-acid diathesis, epilepsy, and chronic nephritis. It has been thought that red meat contains more extractives and ptomaines than white meat, of which the former are especialy injurious to the kidneys. More recently, however, it has been contended that, chemically at least, there is really little difference between red meat and white meat, with the implication that, dietetically, the one is not more injurious in its effects than the other. For the purpose of removing some of the doubt in which this subject seems involved, Pabst[1] undertook a series of experimental observations upon the influence of various diets on the amount of urine eliminated and its specific gravity, the amount of albumin present, the presence of tube-casts, and on the general condition of the patient in cases of nephritis. Two patients were studied. They were permitted to have white meat for one week, a milk diet for the second week, red meat for the third week, a milk diet for the fourth week, and equal parts of light and dark meat for the fifth week. Urinary examinations were made daily. Little difference in the results was found as between light and dark meat, and likewise between these and a milk diet. These observations of themselves are, of course, too few on which to base a final opinion, but, taken together with other evidence, they go to support the view that the effects of dark meat are, perhaps, not so baneful as we have been accustomed to believe.

SOME THEORETIC CONSIDERATIONS ON THE TREATMENT OF GONORRHEA.

Gonorrhea may be fraught with such serious danger that any suggestion looking to its more intelligent and more successful treatment should receive serious consideration. Some reflections of an interesting character in this connection are entered on by Jooss,[2] who points out that it is impossible to destroy from without gonococci that have gained entrance into the tissues, without at the same time injuring the latter. Nor can it be conceived that the remedies used will have the desired effect, as they must diffuse through the membrane in order to reach the micro-organisms. Only the uppermost layers of epithelium are not flushed by the fluids of the body, and they will, therefore, be indifferent in their reactions to chemical solutions. Active absorption from the urethral mucous membrane does not take place. Then, even if the gonococci were destroyed, it is possible that the disease might continue, in part through the actions of toxins, causing paralysis of the muscular coat of the vessels. It would seem, then, that it is against the latter that treatment should be directed. Astringents may be employed, but the results are not always permanent, the discharge often returning as soon as the injections are discontinued. This is due to the fact that the agent can act only on the surface and is unable to influence the deeper layers of the mucosa and submucosa. Experience would seem to indicate that the distending and stretching exerted by injections on the urethra, rather than the astringent or disinfecting qualities of the agent used, has an important influence in the cure of gonorrhea. Gonorrhea can be considered cured when the tissues and the circulation are restored to the normal; when distension of the urethra is not followed by turbidity of the first portion of urine passed; when the prostate gland is soft and elastic, and not enlarged, and its secretion is not yellow; when discharge has wholly disappeared and the urethra is dry, and when both portions of the urine are clear.

[1] Berlin. Klin. Wochenschrift, 1900, No. 25, p. 547.

[2] Centralblatt f. die Krankheiten der Harn- und Sexual-organe, B. xi, H. 6, S. 287.

DIPHTHERITIC PARALYSIS AND ANTITOXIN.

The question whether diphtheritic paralysis is more frequent now than before diphtheria antitoxin came into use would be a difficult one to answer. Ransom[1], in an experimental study of the relation of antitoxin to this troublesome sequel of diphtheria, suggests that the increased rate of recovery under the antitoxin treatment might appear to increase the frequency of paralysis. Under these circumstances it even might appear that the antitoxin actually produced the paralysis, directly or indirectly. Fortunately, guinea-pigs are liable to typical post-diphtheritic paralysis, and hence Ransom was able to investigate the problem indicated in a highly satisfactory manner, at least as far as this animal is concerned. Ransom found from his carefully devised experiments that in guinea-pigs paralysis may be expected with certainty after intoxication with not less than one-fourth of the minimal fatal dose; below one-eighth of this dose no paralysis was noticed. The larger the dose the more severe the paralysis, if the animal survives long enough. "Neutralized mixtures of toxin and antitoxin, containing only about one lethal dose or less, do not appear to cause paralysis." Antitoxin injected fifteen to twenty-two hours after quantities of toxin not greater than a fatal dose "exercises in larger doses a mollifying influence on the subsequent paralysis." With smaller doses of toxin this effect is more evident, but small doses of antitoxin have no distinct preventive effect. Applying these results to human beings, it is probably correct to infer that large doses of antitoxin early in the disease would have a favorable influence upon subsequent paralysis, especially cardiac. Ransom believes, however, that severe cases are likely to be followed by some paralysis in spite of even large injections of antitoxin. At all events it is entirely unlikely that antitoxin in any way favors the production of paralysis; on the contrary, it has a decided preventive action. It must also be remembered that, as already hinted, antitoxin prevents a fatal termination in many cases which might otherwise result in death, and it is in this class that paralysis is also likely to appear. In these we would have paralysis resulting oftener since antitoxin came into use, for the reason that more cases recovered from diphtheria.

[1] Journal of Path. and Bact., 1900, vi, 397.

ETHICS OF PROFESSIONAL SECRETS.

In a recent address the president of one of the branches of the British Medical Association[2] discusses the question of medical secrecy, with special reference to the duty of the physician. In some countries,

[2] Charles R. Stratton, F.R.C.S.: The Ethics of Secrecy in the Learned Professions, British Medical Journal, July 2, p. 140.

notably in France, and in some of our states, all facts learned professionally are legally incommunicable. This certainly simplifies the legal point of view, but it does not improve the situation in some of its moral aspects. The author of the address referred to prefers the uncertainties of the English law, the judge settling each case according to its merits, leaving the law of slander or libel to deal with cases where actual wrong has been done. This may have its inconveniences, it is true, as a jury may be carried away by its sympathies or misled by clever advocates, but it certainly does leave a larger margin for conduct where questions of moral right are concerned. According to the French and the New York laws, the physician can reveal no confidences of his patients even to protect individuals or the public; he must even see an innocent man hanged without opening his mouth when his testimony might save him. That the courts would enforce the law to this extent in every case is perhaps doubtful, but it is in their power apparently so to do. The theory that a man's disease is in all cases a secret belonging to himself is wholly opposed to public policy, and if carried out to its legal sequence would make life insecure. The law directly opposes it in the case of certain contagious diseases that the physician is compelled to make public, and there are others that he might well think it equally his moral duty to report under special circumstances. With modern knowledge and theories regarding venereal disease, silence would be, under certain circumstances easily imagined, an unpardonable sin, and yet the French courts have awarded heavy damages for revelations under such conditions. If such is to be the law, that one can not warn even those nearest and dearest to him against contagion of the most loathsome and dangerous kind, then it ought to be made the duty of the medical profession to excite universal suspicion of such contagion, so that parents would demand that a thorough physical and other examination be made and the results reported before the marriage of their daughter is allowed. The marriage of a syphilitic, or a gonorrhea-infected man, to an innocent woman is a crime—in Michigan it is a statutory one—and medical secrecy ought not to stand in the way of its prevention any more than of any other criminal act. We would not let down the bars of medical ethics in this matter in the slightest, but we ought not to have our liberty to act according to the higher dictates of morals restricted by law. The French law in this respect and also that of New York appear to have gone too far in their comprehensive proscription of all medical revelations of facts professionally obtained.

Medical News.

William B. Berry, M.D., Speaker of the House of Assembly of the Cape of Good Hope, has been created a Knight of Great Britain and Ireland.

Naval medical supplies and dressings have been sent on the water-ship *Arethusa* to the American ships at Taku, China, by Surgeon-General Van Reypen of the navy.

Dr. A. M. Ruffer, president of the Sanitary Maritime and Quarantine Board of Egypt, has received from the Sultan of Turkey the Order and Insignia of the Medjidieh of the second class.

A lupus institute, modeled on Finsen's Phototherapeutic Institute in Denmark, has been founded at St. Petersburg. Dr. Sarapin, who has been studying under Finsen, has been placed in charge.

The degree of Doctor of Laws has been conferred by the University of Michigan and Dickinson College upon Dr. Lewis Stephen Pilcher, of the Methodist Episcopal Hospital, of Brooklyn, and editor of *The Annals of Surgery*.

The English-Egyptian government has commissioned Professor Kolle, of the Berlin Institute of Infectious Diseases, to study the cattle plague and suggest appropriate measures against it, in a three months' trip to the Soudan.

The retirement of Professor Potain of Paris, which is anounced, is of more than local interest, as his friends and well-wishers encircle the globe. In France the age limit for a hospital surgeon is 62; for a hospital physician, 65, except in case of professors of clinics, when the limit is extended to 70, and in case of a member of the Institute to 75, which is Potain's present age. His last lecture was on his favorite subject, the heart and lungs, and emphasized the remarkable harmony between the results of radiography and stethoscopy.

There is Money in It.—It is stated that there are twice as many persons in the so-called schools of mental healing, faith-cure, "christian science," and the like, as there in all of the medical schools of the country. This is certainly encouraging.

Dr. Albert Edward Guelph.—The Prince of Wales has just been elected an honorary member of the British Medical Association. As he has received two medical degrees during the last year or two, and now is a member of the largest medical association in the world he is certainly to be congratulated.

Plague in London.—A cablegram received from Passed-Assistant Surgeon A. R. Thomas, who is detailed for duty at the United States Consulate-General London, England, reports under date of August 3, four cases and two deaths from plague at London. Diagnosis was confirmed by bacteriologic examination. The cases were on the steamship *Rome*.

PENNSYLVANIA.

About three weeks ago diphtheria attacked a family by the name of Anstine, living in York, and out of the four persons affected three have died from the disease. The only survivor is a child 3 years of age.

The Williamsport Hospital will at an early date be adequately equipped with a comfortable nurses' home, the gift of Mrs. Ida McCormick. The building will be three stories in height and 70 feet in length.

The National Guard of Pennsylvania has gone into camp at Mount Gretna, where it will remain for some time. The medical department has recently been fitted out with surgical instruments and medical chests prepared by order of Surgeon-General Shoemaker. Troops to the number of 10,500 will be in attendance.

REPORT OF MEDICAL EXAMINATION.

The State Medical Examining Board announces that there were 330 applicants who took the recent examination in Pennsylvania, and of this number 42 failed to pass, or 13 per cent. One applicant was expelled for attempted fraud. The highest attained, 92.36 per cent., was that of Dr. William Scaeffer Bertelot, of Philadelphia.

DR. WALLACE W. DILL, of Norristown, assumed, on August 1, the duties of resident physician at the Pottsdown Hospital. He succeeds Dr. J. A. Blackford.

Philadelphia.

DR. E. J. HAINES has been appointed resident physician at the Samaritan Hospital, in place of Dr. Ernest B. Mongel, resigned.

THE NUMBER of deaths which occurred in the city for the week ended August 4, was 439, a decrease of 75 from the preceding week. The principal causes of death were: tuberculosis, 43; nervous diseases, 29; nephritis, 27; and heart diseases, 25.

During the past week 303 inquests were held by the coroner of this city. Of this number 35 were victims of the heat. Suicide follows next, with 21 deaths attributed to that cause. Drownings furnished 20 deaths; fireworks 20 deaths. The sum of $141.75 was paid out during this period for witness fees.

DR. ROBERT G. LECONTE has been elected surgeon to the Pennsylvania Hospital to succeed Dr. John Ashhurst, Jr., recently deceased. Dr. LeConte served as resident physician to the hospital from 1888 till 1890, and is also surgeon to the Children's and Bryn Mawr Hospital. He is now on his way to attend the International Medical Congress in Paris.

DR. BENJAMIN SHOEMAKER, president of the Board of Managers of the Pennsylvania Hospital, has received a letter from Dr. Joseph Leidy, who is now attending the International Medical Congress in Paris, stating that the international jury at Paris has conferred a gold medal upon the management of the Pennsylvania Hospital for the services it has rendered humanity during the past century. The jury consisted of a representative each from Germany, Russia, Italy, Switzerland, Belgium, Spain, Hungary, England, France, and the United States.

A FEW DAYS ago one of the daily papers called attention to one of the worst sources of pollution of the Schuylkill River yet discovered. The site was located at the Hunter farm below the city of Reading. An inspection was immediately ordered by the secretary of the Board of Health, Dr. Benjamin Lee, who found the report true and promptly ordered the nuisance (cesspool) abated. Out of the $6000 set aside annually for the use of the Board of Health only a small portion goes toward the abatement of nuisances of this kind.

MARYLAND.

DR. C. P. CARRICO, the physician at the Maryland House of Correction, has found forty-seven cases of scurvy there, resulting from improper diet. The cases are improving under an increased supply of vegetables.

Baltimore.

THE JOHNS HOPKINS Chemical Laboratory Building has been completed, and it only remains to install in it the apparatus. The building was destroyed by fire last December.

SINCE January 1, the city has collected on account of insane patients treated at various institutions $2964.72. By the end of the year the amount is expected to reach $5000.

DR. LLEWELLYN ELLIOTT, of the Washington (D. C.) Health Department, was in Baltimore, August 3, studying the health department's method of treating smallpox and varioloid outbreaks.

DR. WILLIAM B. BURCH has resigned his position as one of the police surgeons, the salary of which is $1000. The reason assigned is that he is dissatisfied with the rule established by the board of police examiners requiring the physical examination of candidates to precede the mental examination.

"DR. C. A. VON AHLEFELDT," who represented himself as a surgeon in the German navy, and left Baltimore after imposing upon the Johns Hopkins Hospital staff, and running up a bill at the Stafford Hotel, was arrested at Cumberland, July 30, and brought back and locked up in the central police station. The arrest took place at the Queen City Hotel, where he had registered as "Dr. W. A. Edwards, of Detroit." He had shaved off his red mustache. He entertained the members of the profession in Cumberland as lavishly as he did the Baltimore physicians. He had no money when arrested, but had on his bureau a picture of Baltimore surgeons with himself as the center of the group. He claims to be from Vienna, and to have been traveling in the United States for two and one-half months. On his return to Baltimore he was committed for court in default of $1000 bail, on a charge of defrauding the Stafford Hotel. He seemed considerably worried, but had little to say. After his measurements had been taken according to the Bertillon method, and his photograph had been secured for the rogue's gallery, he was consigned to jail. "They don't do all this in the old country," he said.

ILLINOIS.

DR. WALTER GARREY, Aurora, a graduate of Rush Medical College, 1900, has been appointed professor of physiology in Cooper Medical College in San Francisco.

Chicago.

DR. HENRY HOOPER is spending a few weeks at Marquette.

DR. A. D. BEVAN is spending his vacation at Manchester-by-the-Sea, Mass.

COL. A. HARTSUFF, medical director of the department of Missouri, left a few days ago, to inspect the posts in the Department of the Lakes.

THE CITY health officers think that the terrible infant mortality of summer is largely due to uncleanliness in the house and its surroundings. "Wholesome food for the young can not be furnished from an unclean, sour-smelling kitchen."

DR. REYNOLDS, commissioner of health, hunted up and condemned 75,000 pounds of poultry on August 6. It had been through a fire in St. Paul, and was hence damaged. This is one of the largest condemnations ever made by the health department.

The city mortality for the week ended August 4, was 484, compared with 438 of last week, and 405 for the week ended Aug. 5, 1899. For the first time in any week since that ended Dec. 28, 1898, there was no death from scarlet fever. Scarlet fever appears to be "losing its evil significance for the sanitarian and health authorities." Acute intestinal diseases head the list with 136 deaths. This increase is due probably to high temperature rather than to impure water, as is shown by the increased number of deaths of infants. Consumption carried off 42, but usually heads the list in winter; next come heart and nervous diseases, each with 32 deaths; pneumonia, 19; sunstroke, 2.

NEW YORK.

DR. GEORGE CHANTON, Kings Park, has been appointed first-assistant physician in the Long Island State Hospital.

THE SECOND annual meeting of the "Physicians of the Lake Keuka Region" will be held at Grove Springs, Lake Keuka, on August 14 and 15. An interesting program has been prepared.

SYRACUSE UNIVERSITY COLLEGE OF MEDICINE.

No changes for the coming year have been made in the full professorships, but a number are announced in the staff of instructors and lecturers. Dr. C. E. Coon has been made director of the anatomical laboratory; Dr. William J. Wallace has been promoted from instructor to lecturer in anatomy; Dr. Eugene Belknap, in addition to being instructor in medicine, has been made director in clinical obstetrics; Dr. Frank Knowlton has been promoted from instructor in physiology to lecturer on that subject; Dr. Robert Pierson has been made assistant in clinical obstetrics in addition to being instructor in histology; Dr. Albert Hotaling has been elected assistant in clinical obstetrics; Dr. A. E. Larkin, instructor in clinic medicine, and Dr. A. J. Abeel, demonstrator in anatomy.

INDIANA.

PHYSICIANS of New Albany have discovered several cases in which children were suffering from formaldehyde, used in milk.

THE ELKHART physicians are wisely forming an organization looking to their protection against those who are negligent in settling their "doctor' bills.

DR. M. A. BOOR, the official smallpox physician of Terre Haute, has been dismissed, as there are no more patients. The first case occurred January 17, and since then there have been fifty-four others. About $5000 has been expended in exterminating the epidemic.

THE ATTENDING physician at the Indianapolis Orphans' Home filed death returns for three infant inmates of the institution, giving the cause of death as inanition, but on a marginal note, expressed his belief that formaldehyde used in the milk furnished to the institution was responsible for the deaths.

MICHIGAN.

DR. FRED SOVEREIGN, of Three Oaks, has been nominated for senator on the Republican ticket.

DR. MINTA P. KEMP has been appointed on the staff of the Northern Michigan Asylum for Insane, at Traverse City.

INCLUDING reports by regular observers and others, consumption was reported present in Michigan during the month of July, 1900, at 175 places; measles at 123 places; scarlet fever at 100 places; typhoid fever at 83 places; diphtheria at 37 places; whooping-cough at 37 places; smallpox at 9 places, and cerebrospinal meningitis at 8 places.

WISCONSIN.

A NEW isolation hospital has been completed at West Superior.

DR. J. M. ALLEN, of Milwaukee, was relieved, August 6, by P. A. Surgeon Herbert Blue, who came recently from Genoa, Italy. Hitherto all lake sailors and marines have been sent to Chicago for treatment. Milwaukee's rating in the United States Marine-Hospital Service has been changed from third to second class.

OHIO.

IN COLUMBUS, the district physicians, under the readjustment of affairs of the health department, must live or have their offices in the wards in which they expect to serve the city.

IT IS stated that twenty or more physicians of Columbus have decided to form a protective association, and henceforth unless patients pay their bills they will refuse to attend them. They say that they have accounts on their books against people who are abundantly able to pay.

DISTRICT OF COLUMBIA.

DR. WILLIAM C. WOODWARD has been reappointed health officer of the District, which office he has filled for the past six years.

DR. JOHN G. CECIL has been elected professor of materia medica and therapeutics in the University of Louisville, vice Dr. William Bailey, resigned.

UTAH.

DR. B. W. MATHER, house surgeon of St. Mark's Hospital, Salt Lake City, has resigned and Dr. H. C. Deane, formerly house physician, will take his place. Dr. Carol Landenberger, of Philadelphia, will be house physician.

MAINE.

DR. FREEMAN H. CHASE, Bangor, is spending his vacation at Northport.

DR. JOHN F. HILL, Augusta, has been nominated by the Republican party for governor.

KENTUCKY.

DR. J. N. MCCORMACK, secretary of the State Board of Health, on August 1, gave a lecture on hygiene, to the physicians of McLean County, and also organized a local medical society.

WASHINGTON.

DR. W. C. COX, Everett, has been appointed a member of the State Board of Medical Examiners to take the place of Dr. Van Zandt, whose term has expired.

MASSACHUSETTS.

DR. WILLIAM W. HARTWELL has been appointed house physician at the Malden Hospital.

NEW JERSEY.

GOVERNOR VORHEES, on July 31, appointed Dr. H. W Elmer, of Trenton, a member of the State Board of Health, to succeed Dr. Franklin D. Gaump, deceased.

SOUTH CAROLINA.

THE MEDICAL SOCIETY of South Carolina has placed "its stamp of approval" on the water of the Edisto River, for supplying the city of Charleston.

VIRGINIA.

DR. CUNION G. WILLIAMS, Richmond, has been elected professor of histology, pathology and bacteriology in the medical college of Virginia.

IOWA.

DR. PETER BASSOE, of the Mount Pleasant Insane Hospital staff, has resigned, and intends visiting Europe.

CALIFORNIA.

DR. E. J. HENNESSY, Napa, has been appointed as one of the board of managers of the Napa State Hospital.

RHODE ISLAND.

DR. GEORGE W. JENKINS has been elected president of the Woonsocket Hospital corporation.

GEORGIA.

DR. RALSTON LATTIMORE, Savannah, has gone to Europe for a two months' trip.

MONTANA.

DR. A. C. MCCLANAHAN, Red Lodge, has gone to Europe, to remain a year.

CANADA.

DR. OGILVY, Montreal, has been appointed house surgeon at the city hospital, Blackwell's Island, N. Y.

CONCERNING smallpox in Montreal, the last quarantine was raised on August 2, and all the cases are said to be progressing favorably.

DR. CHESTNUT, superintendent of the Winnipeg General Hospital, has gone to Europe for a year's study. During his absence the affairs of the hospital will be administered by Dr. Trick.

GENERAL MANAGER HAYS, of the Grand Trunk system of railways, has appointed Dr. J. Alexander Hutchinson, of Montreal, chief surgeon of the lines west of the Detroit and St. Clair rivers.

DR. LABERGE, medical health officer of Montreal, has gone to Paris to attend the Exposition. While there he will pay particular attention to all matters pertaining to sanitation, and to the health and well-being of great cities in particular.

ONE of the graduates in medicine this year at Laval University was a Syrian, Nagib Abdow. He has proceeded to Paris, where he will take a two years' course in surgery, after which time he will return to his native land to practice his profession.

THE DEPARTMENT of Inland Revenue will make another collection of alum baking-powders in December for analytic purposes. After that manufacturers of these powders will be prosecuted if an attempt be made to continue putting them on the market.

DR. EDGAR A. GRAFTON, a promising young physician of Montreal, was drowned last week while bathing, four miles below the city, in the St. Lawrence. A house surgeon of the Kingston Hospital met a similar fate while canoeing amongst the Thousand Islands.

A CONGRESS of French-speaking physicians and surgeons of America is proposed by the Société Médicale de Quebec. The proposition is to have it assemble at Quebec in 1902, in honor of the semicentennial of Laval University, the first French college in the country.

DR. JAMES H. RICHARDSON, emeritus professor of anatomy in Toronto University, celebrates his golden wedding this week. He received his M. B. degree in 1848 and was appointed professor of anatomy in 1850. About four years ago he resigned and was placed on the emeritus staff.

AMBULANCE DOCTORS FOR TORONTO.

Although for years past there has been some agitation for the appointment of properly qualified physicians on our ambulances, no decisive step has been taken, and the appointments are now again being proposed. There would probably be a few objections raised to these appointments from citizens, and every day their necessity seems more apparent. Since the establishment of the emergency hospital down-town, doctors are not by any means called so frequently to accidents. From all over the city the victims of these accidents are hurried to the emergency hospital, without any surgical assistance, except what a policeman trained in "first aid" can render. It is expected that the question will be discussed at an early meeting of the Board of Police Commissioners.

CANADIAN MEDICAL ASSOCIATION.

The profession in the City of Ottawa are bestirring themselves to make the coming meeting of the Association in the capital city a pronounced success. This Association was first organized in 1867 in the city of Quebec, with the Hon.—now Sir—Charles Tupper as its first president. This position he held for three consecutive years, and the following gentlemen have since succeeded him: The Hon. D. McN. Parker, Halifax; Sir James Grant, Ottawa; William Marsden, Quebec; Le Baron Botsford, St. John; Dr. Hodder, Toronto; Sir William Hingston, Montreal; Dr. Workman, London; Dr. Howard, Montreal; Dr. Canniff, Toronto; Dr. Fenwick, Montreal; Dr. Mullin, Hamilton; Dr. Sullivan, Kingston; Dr. Osler, Montreal (Baltimore); Dr. Holmes, Chatham; Dr. Graham, Toronto; Dr. Ross, Montreal; Dr. H. P. Wright, Ottawa; Dr. J. F. W. Ross, Toronto; Dr. Roddick, Montreal; Dr. Sheard, Toronto; Dr. Harrison, Selkirk; Dr. Bayard, St. John, N. B.; Dr. Thorburn, and Dr. Cameron, Toronto, and this year Dr. R. W. Powell, Ottawa. From 1870 to 1875, inclusive, the average attendance was 57; from 1876 to 1881, 68; from 1882 to 1887, 80; from 1888 to 1893, 98, and from 1894 to 1899, 134. This shows a good healthy increase, indicating that the association is continuing to prosper and grow in favor with the profession. As regards the papers for the coming meeting the general secretary states that they will be numerous and instructive. It is expected that Dominion Registration will be discussed for the last time and unanimously approved by this association.

THE SEWAGE FARM VS. SEPTIC TANK FOR TORONTO.

The city engineer is now busy preparing his report on this subject to be presented to the first meeting of council after vacation. Toronto must soon grapple with this question in municipal politics. Toronto has an unusually large consumption of water daily, the average exceeding twenty million gallons, and it is stated that the quantity of sewage to be disposed of is greater than in most cities of like population, though less offensive and perhaps easier to deal with. With a population of 225,000, Toronto has as great a quantity of sewage to deal with as Berlin, Germany, which possesses the most complete and up-to-date outfit as regards sewerage system and sewage farms. The daily press has been laying the matter pretty clearly before the people, contrasting the sewage farm and the bacteria treatment; and as the medical health officer has been urgently and persistently advising the council to proceed with this work, we may expect that the autumn will see the question grappled with in a way that will redound to the health of Toronto's citizens.

MARINE HOSPITAL NOTES.

QUARANTINE IN THE PHILIPPINES.—This station having been placed under the Marine-Hospital Service by executive order, the former Spanish quarantine station at Mariveles Bay, near Manila, has been transferred to the Service, and P. A. Surgeon Perry, now on duty at Manila, is remodeling same and equipping it as a model quarantine station.

YELLOW FEVER IN FLORIDA.—A telegram has been received from Surgeon White, who is on an inspecting tour in Florida, stating that the health officer of Hillsboro County, Fla., had wired the state health officer of the presence of two cases of yellow fever in Hillsboro County. Surgeon White and the state health officer started for Tampa at once. A subsequent telegram from State Health Officer Porter states that there are three cases. From the present knowledge of the situation the Surgeon-General is unable to say whether the fever will become epidemic.

FORMALIN DISINFECTION.—A bulletin has just been issued by the Hygienic Laboratory on formalin disinfection of baggage without apparatus. This work was undertaken on account of the rather widespread use of formalin for the disinfection of baggage by sprinkling it on clothing in trunks, or by pouring it on absorbent material in the corners of a trunk. Conclusions reached by experiments are that the method is not a good one, and, while sprinkling formalin on baggage in a trunk or box may be depended upon to kill non-spore-bearing organisms, such as typhoid and diphtheria, through three layers of blankets, it can not be depended upon to kill anthrax spores through one layer of blanket. However, the quarantine regulations of the United States require the use of chemical and physical agents sufficient to destroy spores.

Correspondence.

Rambling Notes of a Roving Doctor.

PARIS, July, 1900.

MEDICAL MATTERS IN VIENNA AND PARIS—TUBERCULOSIS.

To the Editor:—Nothnagel gave us five lectures on the subject of tuberculosis. He discussed the disease in its different manifestations, and asserted that there were few people living who had not in some part of their economy living tuberculous germs. The old idea that phthisis pulmonalis was always a fatal malady was proved by the many autopsies that showed the existence of healed cicatrices in lung tissues that had been invaded by the specific germ. In his treatment he ignores the use of all drugs almost entirely. The hygienic management and the selection of a desirable climate are the only curative agents upon which he places any confidence. In his choice of a climate, one as free as possible from dust and germs should be selected, very little attention being paid to temperature. Medication is restricted to such agents as aid in the digestion and assimilation of food. Creosote, in some cases, if given in moderate doses, he thinks is of benefit but only in so far as it may act as a stomachic and intestinal disinfectant. To fulfill these indications, however, one prefers the carbolate of guaiacol, which he uses to correct any putrefactive changes that may be going on in the alimentary tract. Cod-liver oil, he thinks, is only applicable to those patients who can not eat and digest fatty articles of diet, and these comprise but a small percentage of phthisical subjects. The raw meat treatment of tuberculosis is at present exciting considerable interest in medical circles in France. More than thirty years ago, a physician of Montpellier presented before the Paris Académie des Sciences a paper entitled, "Sur un Nouveau Traitement de la Phthisie Pulmonaire." In it was given a report of 2000 cases of pulmonary tuberculosis treated by giving from 100 to 200 grams of pounded raw meat in the twenty-four hours. An amelioration of the symptoms followed in a large majority of these cases, and many of them were permanently cured. This treatment, however, was never even given a trial in Paris, at least not by any men of recognized authority in the profession. However, the subject has lately been brought forward in a new aspect, and is, as I before said, attracting a good deal of attention at present. Drs. Richet and Haricourt have made some experiments in which they took 328 dogs and inoculated them with Koch's bacilli. After being thus thoroughly infected the dogs were divided into two groups. One section was fed on raw meat, giving a dog of average weight 120 grams in the twenty-four hours. The other section was fed on a generous mixed diet including plenty of cooked meat. All the dogs in this last section died of acute tuberculosis within six weeks, while those that were given raw meat only, resisted the effects of the inoculation for

a long time, even a year or more. The experimenters believe that the good effect of the raw meat is not on account of its nutritive qualities, but that it is a real destroyer of the germ that produces the disease. Healthy dogs fed for a year or more on raw meat were found to be nearly immune against the action of the tuberculous poison.

PLEURITIC EFFUSIONS.

I found the management of these cases to be about the same in all three of the medical clinics in Vienna. An early exploration of the chest is made with a small instrument, to determine the character of the effused fluid. If the fluid is found to be serous in character, the case is treated expectantly, that is, no interference is considered necessary unless the quantity of the fluid becomes large enough to materially interfere with the functions of the heart or lungs. The patient is put to bed, kept warmly covered, and not allowed to take any exercise. No medicines are given unless the case is supposed to have a rheumatic taint about it, in which case it is given the salicylate of soda. Nothnagel says that the cathartics, diuretics, and diaphoretics that are often prescribed with a view of hastening the absorption of the effused fluid are not only worthless, but harmful, as they lessen the vitality and resistance of the patient, and fail to produce the effect for which they are given. When it is thought necessary to draw off the fluid, great stress is put upon the fact that only a small quantity should be drawn off at once. Generally not more than one pint and never more than three should be removed at a single operation. It is claimed that to remove more than the last named quantity is dangerous, and that rmoving only one pint, you are just as likely to have all the balance absorbed, as if you remove more. In this class of cases the aspirator is used to draw off the fluid, and great care is taken to not allow the ingress of air into the pleural cavity.

Furbinger of Berlin teaches and practices a management of serous effusions into the chest walls, in direct opposition to that taught and practiced in Vienna. He taught us that all these effusions into the pleural cavity, however small, should be removed at once.

In his visits around the wards, he always carried with him his exploring syringe, and used it nearly as often as he did his stethoscope. In the pneumonia of children, he said, he had often saved the life of the little patient by drawing off only a few ounces of serum from the chest, and advised us to never treat a severe case of this disease without making a frequent exploration, to ascertain whether or not there was fluid in the pleural cavity. If the effusion is purulent in character, the general rule in such cases is followed, that is, to open up the chest walls and drain.

I find, however, that the practice of resecting a rib or two as a part of the operation, is not as universally practiced as it was some years ago. They are now operating on a good many of these cases by puncturing the chest with a large trocar and canula, allowing the pus to flow off, and then introducing through the canula a rubber drain, and allowing this to remain. I saw this instrument used several times with satisfactory results, one of its advantages being, that it leaves no large, raw surface to become infected, as is the case when the chest is opened with a knife.

PNEUMONIA.

To write on this subject is to discuss one of the most worn-out themes in the whole domain of medicine. However, when we consider that probably at least one-fourth of all persons in the United States who reach the age of 50 years in good health die of this complaint, and that upon the subject of its treatment the great mass of the profession are still entirely at sea, it certainly furnishes a sufficient reason for its frequent discussion among medical men.

The case of the great French surgeon, Pëan, will illustrate how the profession look upon a bad case of pneumonia. He was taken with the initial chill, and twenty-four hours later sent for a physician to examine his chest. That physician told him that he had double pneumonia. "That," replied Pëan, "seals my doom, for a man above 70 with a double pneumonia always dies." He made his will, then sent for a priest, and prepared for a death that followed only a few days later.

Two decades ago, when opening his lecture at Guy's Hospital on this subject, Dr. Reese said, "In treating of my theme I shall not be able to make a single assertion with regard to this disease, its pathology or its treatment, but some man of equal authority as myself, will give it flat contradiction." Excepting that at the present time we recognize the disease as a specific one, having for its cause a specific germ, the same remark would apply to it to-day as that made by Dr. Reese nearly a quarter of a century ago. For a period of forty years there was kept an accurate record of all the cases of this disease that occurred in the Massachusetts General Hospital, but unfortunately these records teach us only one fact of practical importance, and that is, that however varied the treatment may have been, the mortality of the disease was essentially the same.

Back in the 60s I was following the service of Dr. Bennet, at Edinburgh, in Scotland. We had in the wards several cases of pneumonia which that eminent clinician was utilizing in his bed-side teaching. Among these was one desperate case for which Professor Bennet said there was no hope, and upon whose cadaver we would probably hold an autopsy the following day.

We had a young Swedish physician in our class, who at Stockholm had seen a case of this kind treated by the application of cold to the chest, and he asked the professor if he would allow him to try this plan of treatment on this case. Consent was given and the Swede took the patient in charge. He enveloped the chest in cloths wrung out of cold water, which he changed at first every fifteen minutes, and later at longer intervals. At the end of twenty-four hours the patient was much better, and soon after was on the high road toward recovery. This case, though only a single one, produced a most profound impression upon my mind, and has influenced my practice in this class of cases from that time to the present.

The treatment is not adapted to all types of the disease, especially is it not applicable to old persons with weak hearts, but in vigorous adults and especially among children, I consider in bad cases this remedy superior to all drugs of whatever kind. I think I can say further that after using cold applications to the chest for over thirty years in the treatment of pneumonia, I have saved more lives with this remedy, and had more stubborn quarrels with meddlesome old women on account of its use, than any other agent I have used during that time.

From some cause or other, that I am not myself able to explain, pneumonia during the last decade in my practice, has been a more fatal disease than it was in former years. During my last interview with Professor Furbinger, of Berlin, I asked him if pneumonia in his practice was more fatal than it was fifteen or twenty years ago. He said it was not. When I told him I thought that with us in America it was much more so, he replied, "I am not astonished at that, for you kill your patients with your medicines." He then quoted to me the large doses of quinin recommended by Bartholow and other writers, and commented on our use of the coal-tar derivatives, and wondered why with such treatment we did not kill all our patients. The most enthusiastic man I have ever met, and the one who has the most implicit confidence in his mode of treatment of pneumonia, is Dr. Huchard, a lecturer on internal medicine at the Necker, in Paris, and editor of *Le Journal des Practiciens*.

Mild cases, with no complications, he treats expectantly, but when grave symptoms begin to manifest themselves in the way of a cyanosis of the extremities, or a weak heart, he relies on huge doses of digitalin. He uses from 20 to 30 drops hypodermically of a solution of 1 to 1000 of the drug, two or three times in the twenty-four hours, and relates successes that are something wonderful. Huchard, Like Germain Sée and other French authorities, ignores entirly the use of crude preparations of digitalis, such as the tinctures, fluid extracts and infusions, claiming that they are never reliable, on account of the different amounts of the active principle they contain. In Vienna, the treatment of pneumonia has been considerably modified during the last twenty years. Then as now, hydrotherapy was the agent principally relied upon, but I find the baths used now are of a much higher temperature than they

were twenty years ago. Cases that are of a mild or ordinary type are given no medicines at all except a mixture of the yolks of eggs, a little creosote, cognac and cinnamon water to prevent tympanitis, and a drink composed of Vichy water and bicarbonate of soda, which they claim acts to liquify the secretions of the bronchial tubes, and thus prevent the spread of the disease to other parts of the lung not yet involved.

Codein or morphin is given frequently to quiet the cough. Our objection to opiates, on the ground that they dry up the secretion of the bronchial tubes, Nothnagel does not recognize as valid. He says that we let our patients die, worn out by a hacking cough, when often a little morphin given judiciously would save them. Only a couple of baths are given in the twenty-four hours if the case is one of ordinary severity. Temperature, as such, is not usually actively combated, unless such excessive heat of body is accompanied by grave symptoms of a nervous character.

Antipyretic remedies are never given. To combat the hyperpyrexia, baths are given of a temperature of about 90 F., and these baths are repeated every one to three or four hours, according to the severity of the case. On being taken out of the bath, the whole spinal column is sponged off with water of a temperature of 60 F. Great care is taken to disturb the patient as little as possible in giving these baths, and he is lifted from his bed with the sheet into the tub, and back into his bed in the same manner.

They say reserve your whip until your horse begins to tire. If, on the contrary, you begin to use your heart stimulants early, they will have spent their force before they are really needed, and when you resort to them in an emergency they will fail to act. Hypodermics of camphor dissolved in olive-oil, strychnin, digitalis and brandy are the class of stimulants that they rely upon, though the last form of stimulants they give during the whole course of the disease. In bad cyanotic cases a reservoir of oxygen gas is kept constantly by the bed-side, and is given by inhalation at intervals of from one-half to two hours according to the urgency of the symptoms.

A symptom that complicates most severe cases of pneumonia is that of tympanites, and this symptom is most actively combated by the use of the rectal tube and injections into the bowels of small quantities of hot water and turpentin. In the medical service I followed in Naples they were giving from one to two grains of nitrate of silver in the twenty-four hours, as a remedy for pneumonia. The rationale of this treatment I could not comprehend, and I attributed the faith of those who used the agent to that false delusion that associates every recovery we have in our practice with the remedy we have given, however little it may have had to do with the cure of the case.

TYPHOID FEVER.

I believe there are few diseases with regard to the treatment of which there is such a unanimity of opinion among the profession as that of typhoid fever, and this opinion has crystallized down into one of almost complete expectancy. It is true that we have a few men like Dr. Woodbridge, who believe they can materially shorten the duration, and lessen the mortality of the complaint, by an active course of medication, but this opinion is not accepted by the great mass of physicians. My observations in Vienna extend back nearly a quarter of a century, and during all that time, this disease has been treated in the main, hydropathically. The only change that I observe from year to year as I return, is that patients are bathed less and less frequently as time goes on, and the baths used are of a higher temperature. Both in pneumonia and typhoid fever, temperature itself is not regarded as such a paramount symptom and one always to be energetically combated, as it was a few years ago. When, however the temperature reaches 104 F. a bath of about 85 F. is given two or three times in the twenty-four hours during the exacerbation of the fever. In the meantime, if symptoms of a profound nervous character supervene, then these baths are repeated at short intervals until the heat of the body is brought down. To guard against a hypostatic pneumonia, the patient is turned frequently upon his sides, and the spine and posterior aspect of the chest are frequently bathed with alcohol.

The bowels are regulated by rectal injections, but if they become decidedly constipated, a calomel purge is given. Vichy water is given freely to keep up the functions of the kidneys. Milk and animal soups are given to nourish the patient, and in Nothnagel's service, no solid food is allowed until the patient has been without fever for ten days. Some form of alcoholic stimulant is given during the whole course of the complaint; at first, a mild red wine, and if a more active agent is demanded, then cognac is resorted to. Other stimulants, as camphor, strychnin and the like, are only resorted to when the pulse becomes rapid and feeble. In case of hemorrhage from the bowels, an ice-bag is applied. Hypodermic injections of ergotin and morphin are given, and if the bowels will tolerate it, a few ounces of a 5 per cent. solution of gelatin is thrown into the rectum.

By what I have written it will be seen that for the management of typhoid fever, in Vienna, there is no treatment other than that of a symptomatic character. In Vienna they tell me that no one has typhoid fever who drinks only water brought from the Semmering. Here in Paris, the conditions are different, for last year they had a wide-spread epidemic of this fever, and I have seen cases of the disease in every hospital I have visited.

At the Andral, one-fourth of all the patients in the male wards were suffering from enteric fever. If you ask a French physician how he treats typhoid fever, he shrugs his shoulders in a significant manner, which means that he does not treat it at all; and he does not, as far as medicines are concerned. Though the plan has only been adopted for a few years, the French in Paris are now treating their cases of this disease with cold baths.

FACIAL NEURALGIA.

I was much interested in Dr. Moyer's late article in THE JOURNAL on the use of castor-oil in the treatment of this trouble, and all the more so as we were having some bad cases of this complaint, at that time, in the Allgemeine Krankenhaus in Vienna. Here, Prof. Gussenbauer is given the credit of having first discovered the benefits that are often derived from the administration of cathartics in this extremely painful complaint. As far back as 1886 he had a patient upon whom he intended to operate for the relief of this form of neuralgia.

As he usually does, before any serious surgical interference, he gave the patient a thorough cathardic of castor-oil and cascara sagrada. To the Doctor's surprise the man was so much better on the following day that the operation was postponed, and the cathartic being continued, the case recovered without the use of the knife. The theory entertained here as an explanation of the beneficial effects of this mode of treating facial neuralgia is that it eliminates certain toxic agents from the alimentary tract, which, being absorbed into the circulation, produce this disease.

As an aid in the accomplishment of this result, Gussenbauer later used freely warm-water injections into the bowels, and kept during several days cold applications upon the abdomen. Dr. Breuer, Nothnagel's first assistant, says that he has not found castor-oil better generally than other cathartic agents, and that he often prescribes large doses of calomel followed by one of the salines. But whatever purgative is used, its action must be most thorough, so as to empty completely the entire alimentary tract.

In three cases of this disease that I saw treated in our medical service, it acted well in two, but the third had to be sent to the surgical section to be operated on. I saw Dr. Ricard, of the St. Louis, in Paris, operate for the relief of two cases of obstinate facial neuralgia. He first chisels into the inferior maxillary bone just forward of its angle, exposes the dental nerve and resects about one-third of an inch of the same. He then cuts down upon the facial nerve where it emerges from the bone just under the eye, lifts it up and pulling upon it strongly, resects as much of it as possible. Dr. R. claims that by operating on both nerves in this manner, he does not have to resort to the more formidable operation for the relief of this trouble.

V. 3
190

PROLAPSUS UTERI.

Doctor, I suppose you have had many a case of an old lady come to you with a prolapsed bladder, a rectocele and a prolapsed womb. What do you do for this poor, old, suffering mortal? As far as any surgical operation to relieve her is concerned, she is usually dead set against anything of that kind. An ordinary pessary will not remain in place, owing to the relaxed condition of the parts, therefore you must resort to one of the numerous stem instruments that are held in place by being fixed to some appliance that passes around the pelvis, and this appliance is a most uncomfortable one to wear. Among eminent gynecologists the management of this class of cases is as varied as the men you meet.

Schauta, in Vienna, treats these cases by a vaginal fixation and an anterior and a posterior colorrhaphy. His vaginal fixation includes a shortening of the round ligaments. 1. The first step in the operation is to deeply denude an oval-shaped surface that extends from the meatus down to the junction of the vagina with the uterus. 2. Open up into the peritoneal cavity by cutting, not tearing, the tissues that unite the anterior walls of the vagina to the womb. 3. Stitch your severed peritoneal edges to those of the vagina. 4. Introduce a retractor and raise the vesico-vaginal tissues high enough to bring the whole anterior aspect of the womb into view. 5. Catch the round ligament and folding it upon itself, sew the two folded surfaces together. 6. Pass two or three fine silk stitches through the anterior aspect of the womb and, after raising this organ as high up as possible, pass these stitches through the vaginal walls on each side, and tie them tightly. 7. Close up now the balance of your denuded vaginal surface, and this done, you have your anterior colporrhaphy completed. You have now only to do the operation on the posterior vaginal walls, and your case is supposed to be cured.

Terrier, of the Pitié, in Paris, says that this operation is ineffectual, and treats these cases by a ventral fixation of the womb, followed a month later by an anterior and posterior colporrhaphy. I asked the doctor what influence his ventral fixation had on a future labor if the patient became pregnant. He replied by poohing at the idea that it could have any bad influence on the process of parturition. He had probably never seen the report of the discussion of this subject before the New York Academy of Medicine, where the consensus of opinion among some of the best men in America was that this operation should not be done on any woman who was liable to become pregnant.

Richelot operates on these cases by first amputating the cervix if it is much elongated, and then narrowing the anterior and posterior vaginal walls. It is, however, upon the posterior colporrhaphy that he relies, and says that if this is well and thoroughly done, any other operation is scarcely ever needed. In doing this posterior narrowing he begins by making an incision at the margin of the skin, and dissects up a wide flap as high as the junction of the cervix with the vagina. He cuts away all this flap and then closes the parts with a single row of catgut sutures. I asked him if these cases did not often relapse, and he replied that about one in ten did, but a second operation like the last always puts the patient right again.

Where to do a hysterectomy is the rage, as it is here in Paris, one often sees this operation done to relieve the old lady of her prolapsed bladder, rectum and womb. Championnière tells me, however, that in his hands, this operation, to relieve these cases, has been a failure; for after the menopause the uterus is usually so small that it plays but an insignificant rôle in this trouble, and that hence, after you have removed the womb, the walls of the vagina still fall down, which leaves your patient in as bad a condition as she was before she was operated on.

W. S. CALDWELL, M.D.

Typhoid Fever in Camp.

PHILADELPHIA, July 22, 1900.

To the Editor.—Referring to the correspondence between Dr. Vaughan and Dr. F. R. Packard, in which my name occurs as an authority for the statement concerning the absence of typhoid fever from the camp of Col. Biddle Porter's regiment, I beg to add a word. I pretended at Washington, and pretend now, to no original information on the subject. I cited from memory, with a qualifying phrase as to want of exactness, and an appeal for correction to a fellow member of the Association, the record of this regiment as published by the junior surgeon —Dr. F. R. Packard. This record, as so published, and as repeated by the responsible author in his letter to THE JOURNAL, is admitted by Dr. Vaughan to be correct. In the printed report of the discussion as correctly quoted by Dr. Vaughan, my remarks appear without qualification, and in so far as they exceed the record are to be modified.

The point made by me, and for evidence of which the remarkable record of this regiment was referred to, remains unaffected. The volunteer surgeons have been charged with responsibility for the occurrence of typhoid fever in the camps of the United States Army. This charge I believed, and still believe, to be without proof. It is admitted that the sanitation of the camps generally and the control of the men were, to say the least, defective. The question is who was responsible? I affirmed at Washington, and now reaffirm, that responsibility must lie with the executive authority and not with those having only advisory function—with the colonels, therefore, and not the surgeons. In proof thereof we have this one regiment, at least, in which the colonel did as the surgeons advised, and which was practically free from typhoid. Until it can be shown that in other regiments the colonels, the captains, and other line officers—the men having power, and therefore duty—were equally careful in draining and policing the camps in strict accordanace with the advice of the medical officers, it is unjust to assume that the latter were negligent. I have no other interest in the matter than truth and the fair fame of my profession; and I am sure Dr. Vaughan also has the same interests.

Yours truly,

SOLOMON SOLIS-COHEN, M.D.

A Proprietary Medicine.

OGDEN, UTAH, Aug. 4, 1900.

To the Editor:—The owners of a certain secret proprietary remedy—known as antikamnia—have recently scattered broadcast among the laity of this city—and probably of other cities —untold numbers of "faith pictures," on the backs of which appear the many indications and explicit directions for the use of the stuff, accompanied by a glowing apostrophe to "Dear Doctor, may your faith never grow less, etc.," which I enclose.

It has long been a mystery to me how sensible physicians could prescribe such substances. The "faith picture" seems especially appropriate in this connection, considering the "working" propensities of both.

Very respectfully,

H. B. FORBES, M.D.

Association News.

Is Your Address Correct?

A list of members of the AMERICAN MEDICAL ASSOCIATION will be published in an early number of THE JOURNAL. It is important that this list be correct, and we would, therefore, ask each member to examine the label on his wrapper and, if not correct, notify us immediately so that the name may be correctly printed in the list. Subscribers who are eligible for membership and desire to be enrolled are requested to make application at once so that their names also may appear in the published list.

American Medical Association.

The following are a few of the comments on the last meeting of the ASSOCIATION:

AMERICAN MEDICAL ASSOCIATION.

The meeting held at Atlantic City, N. J., June 5-8, was simply immense—the attendance closely approaching 2500, many of the delegates being accompanied by their wives, the occasion was most enjoyable. The place of meeting, with its many attractions at this season of the year, the hotel facilities, and the arrangements, were all most admirable. The general

sessions were a little marred at first by the noisy accompaniments of brass bands on the pier, as well as some other noises from other avoidable sources, which when corrected left nothing to be desired. As a matter of course we can not pretend to give anything like a full report of even the general sessions; the work done, the number and attendance of the sections, will tax to some extent the resources of the Journal of the Association. —*Southern Practitioner*, July.

THE ATLANTIC CITY MEETING.

The Atlantic City meeting of the American Medical Association, held June 5-8, was the most successful, the best on record. More than two thousand were registered as delegates, and not less than ten thousand, including relatives and friends of doctors, were present during the week. . . . The weather was ideal, and Atlantic City is an ideal place for a convention. . . . The best registration facilities on record were furnished, and this partly accounts for the large registration. The writer had delightful experiences on all sides, every prospect pleased and not a single man was vile, but he heard many complaints from delegates on account of overcharging at hotels, the impression being made upon many that they would have fared better had they taken their chances as outsiders and not engaged rooms in advance as delegates.—*Medical Mirror*, July.

THE 1900 MEETING.

The largest, most earnest and industrious, as well as the most profitable and enjoyable meeting of the American Medical Association ever held, was that which convened in Atlantic City last month. It was a grand success, from every point of view. The greatest of health resorts was seen at its best, even the elements being propitious. The local committee surpassed itself in providing entertainments for the members and the ladies accompanying them, and everything was *en fete*. With such a host of attractions and distractions, it would have been scarcely surprising if the work of the sections had been somewhat neglected, and yet in each of them nearly every one of the long list of papers whose authors attended was read to better audiences than usual, and many of the discussions were remarkably interesting. The general sessions were also well attended, and the President's Annual Address, by Dr. Keen, the Oration on Surgery, by Dr. Rodman, that on State Medicine, by Dr. Vaughan, and that on Medicine, by Dr. Witherspoon, were all model papers which were listened to with eager attention. The increasing strength, activity and influence of the Association reflect credit upon its officers, and may well rejoice the heart of every American physician.—*International Medical Magazine*, July.

THE FIFTY-FIRST ANNUAL MEETING.

The fifty-first annual meeting of the national medical organization, held this year at Atlantic City, New Jersey, was the largest and one of the most successful in the history of the Association. The place of meeting was popular, well advertised, and accessible from the large centers of population in the Eastern and Middle States, thus insuring a good attendance. Atlantic City, early enough in the season to avoid the mosquitoes, is a delightful resort, with bracing ocean breezes and nothing to distract the attention from the meeting itself. There was some little complaint that the halls for the various sections were somewhat scattered, thus requiring a good deal of foot exercise on the "board walk," but that was a good fault. A worse fault was that some of the halls were noisy. However, the meetings in the sections, as well as in the general assembly, were largely attended, and excellent work was done. We can not recall ever having known more extensive and interesting programs or heard better papers or discussions. The president's address was a model, and should be read by every doctor in the land. If that portion of it relating to the endowment of medical schools could be circulated freely among people of wealth great good might in time result. One of the features of this meeting was the pathologic exhibit, collected under the supervision of the unofficial committee on pathologic section, of which Dr. L. Hektoen was chairman.

The social instincts of the doctors and their friends had been duly provided for, and the various entertainments and receptions were well attended and enjoyed. Ohio's new medical law created considerable interest and enthusiasm.—*Cleveland Medical Gazette*, July.

AMERICAN MEDICAL ASSOCIATION.

The officers and likewise the various committees of the American Medical Association are to be highly congratulated on the very successful way in which the fifty-first annual meeting was conducted at Atlantic City, N. J., during the present month. There was nothing to in the least mar the enjoyment or profit of the occasion, the weather was perfect, and the place selected for the various sections was ideal. Atlantic City is itself an island standing out in the sea, and it has two long piers extending far out over the water. On these piers are built several long auditoriums with smaller halls attached, giving ample room for the general session and nearly all section meetings, beside a place for the exhibits. The whole water front connecting these piers, and extending several miles, is traversed by a wide board walk, over which pedestrians can overlook the beach and sea.

The general sessions, which were held each morning at 10 o'clock, were well attended, and a large amount of business was transacted, including numerous improvements in the Constitution and By-Laws. The Constitution and By-Laws were so changed as to limit the papers in any one section to thirty, thus affording more time for discussion. At this meeting, as at many others, the papers were all read very hurriedly, and many of the authors were unable to complete their reading for lack of time. Discussion was very much curtailed in many instances. With the number of papers reduced almost one-half, we should certainly have better and more exhaustive discussions. This is a movement in the right direction.—*The Medical Fortnightly.*

Book Notices.

INJURIES TO THE EYE IN THEIR MEDICO-LEGAL ASPECT. By S. Baudry, M. D., Professor in the Faculty of Medicine, University of Lille, France. Transated from the original by Alfred James Ostheimer, Jr., M. D., Philadelphia, Pa. Revised and edited by Charles A. Oliver, A. M., M. D., attending surgeon to the Wills Eye Hospital, Ophthalmic Surgeon to the Philadelphia Hospital. With an adaptation of the medicolegal chapter to the courts of the United States of America, by Charles Sinkler, Esq., member of the Philadelphia bar. Cloth, pp. 160. Price $1.00. Philadelphia, New York, Chicago: The F. A. Davis Company. 1900.

The importance of the mediolegal aspects of injuries to the eye are brought forcibly forward by Baudry in this little book. As many injuries to the eye produce different degrees of dimness of vision even to total blindness, and as the same conditions may also be brought about by natural causes, it becomes necessary quite often that the expert witness should thoroughly appreciate the similar and dissimilar conditions as results from trauma or otherwise. While the book is one of only 160 pages, the subject is exhaustively treated and will be of value to ophthalmologists who may be called upon to give expert testimony in the class of cases referred to.

DUANE'S MEDICAL DICTIONARY. New (third) edition. A dictionary of medicine and the allied sciences. Comprising the pronunciation, derivation and full explanation of medical, pharmaceutical, dental, and veterinary terms; together with much collateral descriptive matter, numerous tables, etc. By Alexander Duane, M. D., assistant surgeon to the New York Ophthalmic and Aural Institute; reviser of medical terms for Webster's International Dictionary. In one large square octavo volume of 656 pages, with 8 full-page colored plates. Cloth, $3.00 net; full flexible leather, $4.00 net: Lea Brothers & Co., Philadelphia and New York.

The third edition of this compact dictionary is thoroughly up to date, a quality of no mean importance in these times when new names, new products, and almost new sciences are sprung on us every week or two. The old spelling is rigorously adhered to, the diphthongs being as evident as they were in the first edition published. Modern spelling is evidently not heartily endorsed by Dr. Duane.

CLINICAL STUDIES IN EPILEPSY. From the Craig Colony for Epileptics at Sonyea, New York. By L. Pierce Clark, M. D. Paper, pp. 230. Reprinted from Archives of Neurology and Psychopathology.

This volume is a reprint of three long articles from the *Archives of Neurology and Psychopathology*, a publication which we hope will not be discontinued. The first paper, covering more than one-half the book, treats of exhaustion paralysis associated with epilepsy. The author's conclusions are that the theory of exhaustion paralysis is proved both by physiologic experimentation and pathologic data. It is localized to parts participating in the local spasms or confined to those parts most convulsed in the general seizures. This rule will be found to be followed in the great majority of cases. The temporary paralysis may become permanent and it is not necessary to invoke any other state than exhaustion to explain it. It is essentially the exhaustion of cerebral centers, and the severity of the convulsions is not a fair index to its extent. True exhaustion cases dependent on infantile palsy are not common. The differential diagnosis of the two states is extremely difficult but very important, because the exhaustion cases, independent of organic lesions will bridge over the wide breach existing between Jacksonian epilepsy and idiopathic epilepsy. The disorders of motility of this nature suggest some noteworthy points. The degenerative process is closely allied to that of ordinary paralytic states. It must be allowed however, that the epileptic brain is an infirm organ, and we should not charge to the cause of epilepsy more than that which may be due to previous disability of motor centers. He thinks that there is much suggestive of epileptic foci of a paralytic nature in the brain and that different anatomic and physiologic parts may be simultaneously involved. The inefficiency of passive movements, massage, etc., to shorten or prevent epileptic spasms is especially noted in conclusion. The rest of the book is given up to papers on paramyoclonus multiplex, and hypertrophic infantile cerebral palsy and phocomelus as associated with epilepsy, both of which are noteworthy contributions.

ENLARGEMENT OF THE PROSTATE. Its Treatment and Radical Cure. By C. Mansell Moullin, M. D., F. R. C. S., surgeon and lecturer on surgery at the London Hospital. Second edition. Cloth, pp. 205. Price, $1.75. Philadelphia: P. Blakiston's Son & Co. 1899.

In this second edition the author has omitted a number of operations on the prostate which were described in the previous one and were chiefly of historic interest. Those which he retains he says he knows are of practical value. The book therefore, will stand as giving his recommendation to the measures it includes. We notice that he speaks highly of orchidectomy, but sees little results from vasectomy, which has been lately favored by some prominent writers. In the main, however, the work is one that could be accepted by the profession, not merely on the authority of its author, but as a sensible, practical treatise on the subject.

A PRACTICAL TREATISE OF DISEASES OF THE SKIN, FOR THE USE OF STUDENTS AND PRACTITIONERS. By James Nevins Hyde, A. M., M. D., professor of skin, genito-urinary, and venereal diseases, Rush Medical College, and Frank Hugh Montgomery, M. D., assistant professor of skin, genito-urinary and venereal diseases, Rush Medical College. Fifth and revised edition. Illustrated with three engravings and twenty-four plates in colors and monochrome. Cloth, pp. 863. Price, $4.50. Philadelphia and New York: Lea Brothers & Co. 1900.

As the publisher states, the history of this work is one of growing appreciation and success; the last edition has been entirely exhausted within two years. The author has added new chapters on porokeratosis and blastomycetic dermatitis, and has generally revised a portion of the work and eliminated certain portions which seemed to him of less value. Twelve full-page plates and two engravings have been added to the illustrations. There is no doubt that this revision will maintain its deserved favor with the profession.

MEDICAL AND SURGICAL REPORT OF THE PRESBYTERIAN HOSPITAL IN THE CITY OF NEW YORK. Vol. IV. January, 1900. Edited by Andrew J. McCosh, M.D., and W. Gilman Thompson, M.D. Paper. Pp. 223. New York: Trow Directory Printing and Bookbinding Co. 1900.

This report consists of twenty-two original articles, occupying 223 pages. The articles deal with subjects of current medical and surgical interest, and are based upon cases treated in the hospital. The report is illustrated with photographs and drawings. From the quality of the articles and the subdivisions of the medical board and of the staff of the pathologic department, it is seen that this hospital is well organized and equipped. Medical and surgical registrars are provided for, and good arrangements have been made for securing and classifying the clinical records—a fundamental requisite for proper study of the material. The pathologic department has a large staff of workers.

INTERNATIONAL CONTRIBUTIONS TO MEDICAL LITERATURE. "Festschrift" in Honor of Abraham Jacobi, M.D., LL.D. To commemorate the Seventieth Anniversary of His Birth. Paper. Pp. 496. New York: The Knickerbocker Press. 1900.

The nature of this book is sufficiently indicated by the title. It contains 496 pages, and there are some fifty-seven different articles by about the same number of contributors, the majority of whom are Americans; but Germany, England, France, Norway, Hungary, Russia, Brazil, are represented. The majority of the foreign contributors are Germans. Many of the articles are illustrated; the majority deal with various phases of the medical and surgical diseases of childhood; but not a few are devoted to other subjects. The list of contributors contains many names of prominence. An excellent etching of the recipient of this great honor forms a fitting frontispiece. The preface is a well-written sketch of the manifold, scientific and public-spirited activities of Dr. Jacobi. His brilliant attainments and strong personality certainly warrant this appropriate testimonial in his honor. His services in promoting the study of diseases of children have been of inestimable value to the medical profession.

PLEA FOR A SIMPLER LIFE, AND FADS OF AN OLD PHYSICIAN. By George S. Keith, M.D., LL.D., F. R. C. P. E. Price, $1.25. London: Adam and Charles Black. 1900.

Good, wholesome criticism is always a benefit to the one criticised, if the criticism is made and accepted in the right spirit. This remark applies to a profession as well as to an individual. The "Plea for a Simpler Life, and Fads of an Old Physician"—two books in one—is more than a criticism, it is an indictment of the medical profession by one who was once a member of it. And we must confess that some of the items in the "bill of particulars" are founded on good grounds, and therefore, the plea of "guilty" must be admitted. The author, a brother of the well-known surgeon, the late Thomas Keith, of Edinburgh, was associated with Sir James Y. Simpson, and at one time was proud to be a member of the medical profession. But now he neither proclaims the honor, nor acknowledges the pride. In spite of the fact that he says some harsh things of them it would be a good thing if all physicians would read his book. It is full of good common sense and practical wisdom, and, above all, much of what it contains is truth. His great plea is for plainer living, for less food, especially in sickness, and for less drugs. His protest against forced feeding should be read by every thinking physician. His fads are innocent, but nevertheless valuable ones in their places. The author is an extremist in many ways, and many of his statements are to be resented, still, in these days of high living, which is the cause of so many of the prevailing diseases, the book is well worth reading.

THE REFRACTION OF THE EYE. A MANUAL FOR STUDENTS. By Gustavus Hartridge, F.R.C.S., Senior Surgeon to the Royal Westminster Ophthalmic Hospital. Tenth Edition. Illustrated. Price, $1.50, net. 12mo. Philadelphia: P. Blakiston's Son & Co. 1900.

The fact that this work has reached the tenth edition in six years tells its own tale. As its title indicates, it is concerned only with errors of ocular refraction and the fitting of glasses, ophthalmic diseases and operations being excluded. The work appears to have been thoroughly revised and additions made to keep it scientifically up to date. The metric system is used throughout.

One pleasing feature is that the chapter on retinoscopy has been divided into two parts, explaining the use of concave and plane mirrors, respectively. It thus prevents the beginner from being misled by teachings that are not intended for his particular mirror, for the reason that the movements of the shadows are reversed in the use of the two reflectors.

THE PRINCIPLES OF TREATMENT AND THEIR APPLICATION IN PRACTICAL MEDICINE. By J. Mitchell Bruce, A.M., M.D., F. R. C. P., physician and lecturer on the principles and practice of medicine, Charing Cross Hospital. Adapted to the United States Pharmacopeia by E. Quinn Thornton, M. D., demonstrator of therapeutics, pharmacy, and materia Medica, Jefferson Medical College, Philadelphia. Cloth, pp. 614. Price, $3.75. Philadelphia and New York: Lea Brothers & Co. 1900.

We have here an English work revised and adapted to the American Pharmacopeia. The author was led to its production by observing the difficulties which most students, especially those who have received a modern education in medicine, find in adapting themselves to the practical treatment of disease. He has used here the course which he has followed in his teaching in the class-room and at the bedside, calling the attention of the students, first, to the objects of treatment, and afterward discussing the selection of medicinal and non-medicinal measures required. The first part of his book, therefore, is a general discussion of the principles of treatment, founded on etiologic, pathologic, and clinical character and the cure of the disease, the personal factor in the patient, and the proper relation of therapeutics to medicine. The two concluding chapters of this section deal with the means of treatment, food, rest, exercise, and with therapeutic procedure. In the second portion we have a number of leading diseases thus taken up and discussed. There are separate chapters for each of these, with the general symptoms and indications of the disorder, followed by outlines of practice with general directions as to the measures to be taken from the first visit, containing also formulas that will be of value. The book will find its place and use in the library of the young practitioners, and many older ones may also find it suggestive.

HORSELESS VEHICLES, AUTOMOBILES, MOTOR CYCLES. Operated by Steam, Hydrocarbon, Electric and Pneumatic Motors. A Practical Treatise for Automobilists, Manufacturers, Capitalists, Investors, and Everyone Interested in the Development, Use and Care of the Automobile, Including a Special Chapter on How to Build an Electric Car. With Detail Drawings. By Gardner D. Hiscox, M.E. With 316 Illustrations. Price, $3.00. New York: Norman W. Henley & Co. 1900.

If automobiles ever become practical on all kinds of roads, physicians as much as any class will be benefited. No matter what the future may develop, it can not yet be said that the horseless carriage is able to take the place of the old, reliable four-footed motor. Nevertheless in the cities, and where there are good roads, the horseless carriages are becoming quite popular, and many physicians who are favorably situated are investigating and using them. The literature on the subject is not at all voluminous as yet, and for this reason if for no other this work of Hiscox ought to have a large sale. It gives the history of the progress of the horseless vehicle from the beginning, covering steam, electricity, hydrocarbon vapor and compressed air as the motive power. It is fully illustrated, the illustrations containing full and minute details of the construction of practically all classes of motor vehicles made in this country or Europe, together with half-tones of all the most important kinds of the vehicles in use in the different countries. The detail of construction is gone into fully, almost too much so for those not versed in mechanics. But as a full understanding of all the parts and mechanism, even to the smallest details, is necessary for those who expect to run them, this is of decided advantage after all. The management of the various motors is also thoroughly explained.

Deaths and Obituaries.

ELISHA CHENERY, M.D., died at his home in Boston, August 1, aged 71 years. He was graduated from Harvard Medical School in 1853 and practiced in Maine until 1862, when he entered the army as a surgeon. He was soon obliged to resign on account of ill health and return to Maine. In 1866 he returned to Massachusetts and practiced in Cambridge and Boston until shortly before his death. He was a member of the local medical societies and of the American Medical Association. From 1876 till 1880 he was professor of pathology and therapeutics and dean of the faculty of the Boston Dental College, and from 1881 till 1885 professor of the principles and practice of medicine in the College of Physicians and Surgeons, Boston.

BENJAMIN HOWARD, M.D., died recently in Elberon, N. J., aged 64 years. He was graduated from the medical department of the University of New York in 1858. After serving as surgeon in the Civil War, he practiced his profession in New York City, where he was professor of surgery in the Long Island College Hospital and lecturer on the same subject in the University of New York. In 1877 he was made a member of the Royal College of Surgeons of England, and two years later a Fellow of the Royal College of Surgeons of Edinburgh.

SAMUEL A. H. MCKIM, M.D., of Washington, D. C., after an illness of two years, died July 26 at the age of 74. He was graduated from the National Medical College—Medical Department of Columbian University—in 1852, and practiced continuously in Washington until 1898, with the exception of the time of the Civil War, for which he was one of the earliest volunteers. He served for a quarter of a century as surgeon to the police department and from 1890 till 1898 he was captain and surgeon in the National Guard of the District of Columbia.

RICHMOND JOSEPH SOUTHWORTH, M.D., College of Physicians and Surgeons, N. Y., 1866, died in Washington, D. C., August 2. He was a son of Mrs. E. D. E. Southworth, the well-known novelist. During the Civil War he was an acting assistant-surgeon, U. S. A., and subsequently served on the staff of the Nursery Hospital, Randall's Island, N. Y., as well as on that of St. John's Riverside Hospital, Yonkers, N. Y. He was located in Yonkers until his removal to Washington.

BUELL G. STREETER, M.D., died in Glenns Falls, N. Y., July 25, aged 68 years. During the Civil War he was assistant-surgeon of the Ninth New York Cavalry, surgeon of the Fourth Cavalry, and medical director of the Army of the Shenandoah. When the army was mustered out he located in Granville, but two years later moved to Glens Falls, where he had since practiced.

ELIZABETH L. DENEL, M.D., died at Harper Hospital, Detroit, Mich., after a short illness, August 1, aged 55 years. She was graduated from the Medical Department of the University of Michigan in 1875, and since resided in Detroit. She was an earnest, progressive worker in her profession and was an active member of the Protective Agency for Women and Children.

HARVED C. BROWN, M.D., Old Town, Maine, died suddenly at Foxcroft in that state, from heart disease, July 27. He was graduated from the Medical Department of Bowdoin College in 1895, and served as surgeon to the Canadian Pacific Railway for two years, after which he located in Old Town.

WILLIAM JOSEPH WOODRUFF, M.D., who had practiced in Providence, R. I., since 1896, died of heart disease in that city July 28, aged 30 years. He was graduated from Albany Medical College in 1894, winning the Vanderpool prize of the year, and an interneship at the Albany General Hospital.

LOUIS G. VOIGT, M.D., Freeport, Ill., died from gastric ulcer on August 1, aged 59 years. He was graduated from the New York University Medical College in 1866, and at once located in Illinois. He was county physician for several years and a member of the Stephenson County Medical Society.

W. S. MATTHEWS, M.D., Fort Madison, Iowa, was found dead July 31, aged 49 years. The verdict of the coroner's jury was "apoplexy superinduced by heart disease." He was graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1882.

J. A. HOUTZ, M.D., died at his home in Loganston, Pa., July 24, aged 54 years. He was graduated from Jefferson Medical College in 1871 and, with the exception of one year spent in Philadelphia, he had practiced his profession in Loganston.

GEORGE EDELMANN, M.D., a graduate of Jefferson Medical College, died at the City Hospital, St. Louis, Mo., on July 19. He was a surgeon during the Civil War, and claimed a share in the experiments which led to the discovery of chloroform.

V. 3
190

JAMES MCCONAUGHY, M.D., died in York, Neb., July 18, aged 90 years. He was graduated from Jefferson Medical College in Philadelphia. He practiced medicine in Mt. Pleasant, Pa., for forty-five years, and in 1886 removed to York.

PAUL M. DAY, M.D., Detroit, Mich., died from overdose of aconite, August 1, aged 29 years. He was graduated from the University of Michigan in 1893 and from the medical department of the University of Pennsylvania in 1895.

JOHN L. HOWELL, M.D., died in Morristown, Tenn., on July 30, from carbuncle. He was 46 years of age, and was graduated in 1877 from Louisville, Ky., Medical School, and practiced thereafter in Morristown and Knoxville, Tenn.

THOMAS J. BOYLES, M.D., who had practiced in Houston, Tex., for the past twenty-seven years, died there July 22, aged 50 years. He was graduated from the Medical Department of the University of Alabama in 1871.

DAVID A. WEST, M.D., Lexington, Mich., died August 1 from cancer of the liver. He was graduated from Trinity Medical College, Toronto, in 1866, and had practiced in Lexington for nearly thirty years.

FREDERICK W. HULSEBERG, M.D., acting assistant-surgeon, U. S. A., was killed at Majajay, Luzon, P. I., August 1. He came from New Haven, Conn., and had arrived at Manila only six weeks before.

J. N. SIPE, Booneville, Ark., died on July 26. He was a graduate of the medical department of Vanderbilt University, Nashville, Tenn., of the class of 1876.

PETER C. RUNDIO, M.D., of Williamsport, Pa., died August 1, aged 76 years. He was graduated from Jefferson Medical College, Philadelphia, in 1852.

M. G. CURTAIN ENGLAR, M.D., a graduate of the Baltimore University School of Medicine, in 1898, died in that city July 30, at the age of 27.

RAPHAEL A. EDMONSTON, M.D., assistant-surgeon, U. S. A., died June 2, in the Second Reserve Hospital, Manila, P. I., from blood-poisoning.

J. M. JEFFRIES, M.D., who had practiced medicine for fifty years in Scottsville, Albemarle County, Va., died July 29. He was 70 years of age.

JAMES STOUGHTON, M.D., passed assistant-surgeon U. S. N., was drowned at Shanghai, August 5. He was with the gunboat *Castine*.

SANFORD G. RILEY, M.D., of Hamilton, Ga., died August 1. He was graduated from the Atlanta Medical College, in 1879.

R. FARGUS CARMICHAEL, M.D., house surgeon at the General Hospital, Kingston, Ont., was drowned on July 28.

DEATHS ABROAD.

THE DEATH of DR. E. ANDERS, June 23, is reported from St. Petersburg. He was the well-known Russian authority on pediatrics and orthopedics, although he had barely reached his fiftieth year.

DR. H. DOHNBERG, professor of ophthalmology at St. Petersburg, was shot and killed by a military officer to avenge a private injury, according to accounts in the lay press.

THE DEATH is also announced of the Danish professor of chemistry, Dr. J. KJELDAHL, whose name is familiar by his method of estimating the amount of nitrogen in the urine.

NORBERT FAFARD, M.D., professor of chemistry and toxicology in the University of Laval, Montreal, died recently, aged 53 years.

GEORGE S. GREGORY, M.D., M.R.C.S.E., Kensington, Eng., died July 9, aged 88 years.

Progress of the Plague.—A telegram from Constantinople states that the bubonic plague is spreading rapidly at Symrna, seventeen new cases, and seventeen deaths since the last report. The *Gaz. Méd. de Paris* observes that many of the steamers in the eastern Mediterranean have no appliances for distilling water, and that the ships obtain their supplies from shore as usual, although the plague is officially announced at Aden, Suez and Port Said.

Thirteenth International Medical Congress.

Held at Paris, France, August 2 to 9, 1900.

(By Cable from our Special Correspondent.)

PARIS, Aug. 3, 1900.

The Congress convened for its inaugural session at 2 o'clock, August 2, in the magnificent *Salle des Fetes* in the *Champs de Mars*. The hall, while grand, was too large, and it was difficult to hear the speakers. President Loubet, who had been expected to welcome the members of the Congress, was unable to be present on account of the assassination of the King of Italy.

PROF. LANNELONGUE, president of the Congress, in his address applauded the usefulness of international gatherings of physicians on account of the mutual interchange of ideas, etc. He advocated a universal classification of medical terms. This was gradually being accomplished, and no divergence from recognized language—no volapük—was required for this purpose. It was the pride of France to consider that the first International Medical Congress was held in Paris—in 1867. The results of the closing century in medical progress and research had been marvelous, and the harvest was now being gathered.

M. MONIS, minister of justice, then addressed the Congress, welcoming the members on behalf of the government.

DR. A. CHAUFFARD, secretary-general, made a report of the work done by his department in the organization of the Congress. He announced that it had a membership of 6000, of whom 350 were Americans, and that 260 reports and 1200 communications had been received.

Addresses were then made by delegate representatives of the various nations: Von Bergmann, Germany; Albert, Austria; Sir William MacCormac, Great Britain; Kitasato, Japan; Stokvis, Holland; Jonnesco, Roumania, and Riverdin, Switzerland. No reply was made on behalf of Italy, on account of the national bereavement.

PROF. VIRCHOW, Berlin, then delivered the first scientific address of the Congress on "Traumatism and Infection."

In the section of Dermatology and Syphilography, the first subject for discussion was "The Parasitic Origin of Eczema." Unna, of Hamburg, criticised the classification of the cocci as insufficient and artificial, and recommended one based on special methods of coloration. The etiologic rôle of the parasite should be tested by inoculations. He had found numerous micro-organisms in eczema, which, on inoculation, reproduce the disease. The work of the future should be along these lines. Eczema is a contagious disorder and is probably under certain conditions epidemic.

JAMES GALLOWAY, London, had found cocci in eczema, though he has not sufficient evidence to consider them positively the specific origin of a disease. The later origin is probably staphylococcus aureus, but more than one factor is at work. The first factor is the predisposition of the skin to the growth of parasites; and the second, imperfect metabolism.

L. BROCQ, of Paris, concluded that the vesicular, typical, primary lesion of true eczema is amicrobic; the surface of the eczema is promptly invaded by microbes of secondary infection, capable of creating their own lesions, which are of a microbic nature, and may obscure the symptomatic picture of a condition of which they are never the primary cause.

In the Section of Neurology, Pick, of Prague, read a paper entitled, "Various Points in the Study of Aphasia," in which he considered the auditory and language centers. Ladame, of Geneva, then spoke of pure motor aphasia.

On Friday the subject for discussion in this section was "The Centers of Projection and Association in the Human Brain." Flechsig, of Leipsig, and Hitzig, of Halle, in their remarks, did not agree with, and strongly criticised the views of, Von Monakow, of Zurich.

The first discussion in the Section of Therapeutics, Pharmacology, and Materia Medica was on the "Treatment of Biliary Lithiasis," and was opened by Naunyn, of Strassburg, who

considered, in his remarks, the origin and course of biliary calculi, and pointed out that many of the so-called cures were only apparent, as the disease remained latent, and was liable, later on, to give further trouble. He believes that surgery alone furnishes a complete cure, but that even this was not always certain. Medicinal treatment should be directed toward an increase of the flow of bile.

GILBERT and FOURNIER, of Paris, detailed the nature of the disease, the cures and pseudo-cures, and the prophylaxis. They thought that mineral water was sometimes efficacious, but agreed that in case of obstruction, the aid of surgery should be invoked. Operations for this condition had been made much less perilous by the recent improvements in technique.

CARVELLO then read a paper on the "Treatment of Tuberculosis," in which he gave in detail his results following the administration of trioxymethylene, chloral, terpene hydrate, and iodoform, in this disease.

DOLERIS, of Paris, presented a paper before the Section of Obstetrics on the "Etiology and Nature of Puerperal Infections," in which, after mentioning the heterogeneous infections, he spoke of the autogenesis of puerperal septicemia, due to the transformation of certain so-called saprophytic germs, pre-existing in the secretions, and the possibility of their generalization after parturition without new external infections.

MENGE and KRÖNING, of Leipzig, thought that autogenous infection from anaerobic vaginal bacteria was improbable, that it must be rare, and that the prognosis should be favorable. Bacteria from the external genitalia might produce trouble, but no such organisms live in the cervix, the uterine cavity, or tubes. They considered heterogeneous infection the most important, and that air-contact played only a small part. The chief danger lay in the hands of the operator, and the primary seat of infection is found in wounds of the perineum and adjacent structures.

PESTALOZZA, of Florence, was opposed to vaginal disinfection when the patient was healthy. Even when infection has previously occurred he advises against post-partum examinations, and against uterine and vaginal irrigations.

PARIS, August 4.

In the Section of Psychiatry the first subject for discussion under the head of Mental Pathology was the "Psychoses of Puberty." The first paper was read by Marro, of Turin, who stated that hebephrenia caused gastric disturbances. Voisin, of Paris, considered this condition should be distinguished from progressive general paralysis, and Ziehen, of Jena, mentioned the frequency of insanity in youth, and the importance of regular life and habits in the treatment of this condition.

"The Nature and Causation of Tendinous Reflexes" was the first subject of the day in the Section of Neurology. Papers were read by Sherrington, of Liverpool, and Jendrassik, of Budapest, and the discussion was participated in by Van Gehuchten and Roubinovich.

In the Section of "Medicine of Infancy" (Pediatrics), artificial lactation, and, in particular, the use of sterilized milk, was the chief subject of discussion.

DR. A. JACOBI, of New York, spoke of artificial foods, and said that the results of the analysis of human milk are never identical, and that, therefore, the demand for an exactly equivalent substitute is unjustifiable. Nature is more liberal in allowing latitude than the chemist. Heat both improves and injures milk. Boiled, pasteurized, or sterilized cow's milk is never woman's milk. The process of sterilization is indispensable because it destroys pathogenic bacteria. The artificial food of the infant should be amply diluted, because of the heterogeneous composition of cow's milk. He considers home-made foods preferable to the proprietary foods of the market.

O. HUEBNER, of Berlin, in considering the artificial feeding of infants, said that the intestine of the child was able to digest cow's milk, but with greater labor than was required for human milk. The greater quantity of proteids presents some difficulties, and the asepsis should be strict.

MONTI, of Vienna, in discussing the scientific principles for the production of a food equivalent to human milk, pointed out the difference between the artificial and natural feeding of infants, and mentioned the modification that should be made in cow's milk. The addition of soluble albumin and alkalies, modification of fats, addition of sugar, and neutralization of germs, were among the points noted.

A. JOHANNESSEN, of Christiania, made a report on the sterilization of milk, and the way in which it should be used, which covered similar grounds.

G. VARIOT, of Paris, spoke of the methodic employment of sterilized milk in great cities. In his experience at the Hospital for Sick Children he found that not only healthy children take this food well, but that more than three hundred, who presented more or less marked atrophies, had used it successfully, and furthermore that out of more than eight hundred nurslings they had not a single case of Barlow's disease. Rachitis was very exceptional, but obstinate constipation and anemia were not rare. A. D'Espine, of Geneva, Marfan, of Paris, Escherich, of Graz, and Sevestre, of Paris, joined in the discussion.

On Saturday a symposium was held on "Gastrointestinal Infections and Intoxication of Early Infancy." Escherich, of Graz, described the rôle of microbes in the gastrointestinal diseases of nursing children—ectogenous infections and intoxications—and spoke of the bacteriologic work in that direction which had been done in his clinic. He distinguished between intoxication due to ectogenous decomposition, chyme infection, and infectious diseases of the intestines.

A. BAGINSKY, of Berlin, considered the subject from the point of view of pathologic anatomy. He classifies these affections as, 1, functional troubles, of which acute dyspepsia is the type; 2, anatomic alterations, which include catarrhal lesions, such as subacute dyspeptic catarrh, infantile cholera, chronic gastrointestinal catarrh, and intestinal atrophy, and folliculitis from the simple form to the grave infectious variety, with dysentery. He then took up the causation of gastrointestinal morbid processes from direct action of intestinal microbes, the action of toxins formed under the influence of these microbes, the action of saprophytic microbes, and from toxic substances in food.

F. FEDE, of Naples, had made a particular study of the symptoms and treatment of the chronic forms of gastrointestinal affections and intoxications of nursing children. The dominant symptom is frequent diarrhea. Much may be learned from inspection and examination of the bowel movements, their consistency, odor, presence of blood, micro-organisms, etc. Marked respiratory, glandular, nervous, renal, and cutaneous phenomena attend intestinal intoxication; the clinical forms vary. Hygiene and diet are the first rules of treatment. He then sketched the medicinal treatment, which was, in the main, symptomatic.

MARFAN, of Paris, made a report on the etiology and pathogenesis of infantile gastroenteritis. He recognizes four classes of this disease, viz., dyspeptic, primary infectious, primary toxic, and secondary.

In the Section on Surgery of Infancy the first symposium was on "The Treatment of Congenital Luxation of the Hip." The discussion was opened by A. Hoffa, of Würzburg, who spoke of the operative treatment of this condition, and presented the possibilities and advantages of the Hoffa-Lorenz operation.

A. LORENZ, of Vienna, followed with a paper on "The Bloodless Treatment of Congenital Dislocation" at this point, which he prefers to operative treatment, as the latter is still dangerous. Bloodless reduction, under narcosis, overcomes all difficulties which appertain to operative and apparatus treatment. It is performed without instruments, by means of horizontal or vertical extension, the latter being preferable. The anatomic result thus far has been good in about one-half of all cases, but even in the cases where the anatomic results have not been satisfactory, the functional results have been excellent and superior to those following operative interference. Should the bloodless reduction be unsuccessful, the operative reduction by means of arthrotomy can still be performed.

KIRMISSON, of Bordeaux, recommends orthopedic apparatus for relief of this condition, applied at an early age. The apparatus he suggests is not based on the plan of Dupuytren's cincture, but takes in the thigh and pelvis and keeps the limbs in moderate abduction. The apparatus is the same as that employed in coxalgia. He considers that the results will demonstrate this to be the treatment of the future for congenital luxation.

SEVEREAN, of Bucharest, made a report on cocain anesthesia by injection into the vertebral column. He criticises the method severely. Tuffier gives statistics of 5 deaths in 125 operations in which this method was employed. In one case the death was due to mitral regurgitation. He considers that there may be use for the method when general narcosis is contraindicated.

DR. FENTON B. TURCK, Chicago, in the Section of General Surgery, read a paper on "Prevention of Shock and Infection During Operation," which embodied reports of a series of experiments which show that germs inoculated in animals when in shock proved pathogenic, but when not in shock they were non-pathogenic. Experiments proved that hot applications, made on animals when in shock, resuscitated and no infection resulted. Author is convinced that the application of hot-water bags in the cavity, added to the usual aseptic precautions, will prevent shock and lower mortality after operations.

CECCHERELLI, of Parma, read a paper on the "Surgery of the Pancreas." We meet considerable difficulty in its complete extirpation, by reason of its anatomic relations, being deeply placed in intimate connection with other viscera, very rich in vessels and nerves, and discharging a very important digestive juice. The extirpation is not rational if it is to remove a tubercular or syphilitic process. The operation should be executed in such a manner as to leave one of the two canals. Cysts are the most common tumors. Pancreatic calculi should be removed. An affection carefully studied of late is necrosis of the pancreas; necrotic fragments should be eliminated by the surgeon. If the opening of the canal into the duodenum is stopped, a new way may be made. Hemorrhages may take place without wounds, occurring most often after gangrene. The sutures through the parenchyma are tolerated as in the kidneys, liver and spleen. The union of wounds takes place by proliferation of pre-existing cells and especially of the connective tissue. After the complete removal of the pancreas, we find a great development of the glands of Galeati—crypts of Lieberkuehn—and especially a karyokinetic increase of their epithelium, which leads us to suppose, according to experiments of Martinotti, that it can replace the extirpated viscus. The flow of the pancreatic juice into the abdominal cavity does not cause peritonitis, because its absorption is rapid; like the bile, it is harmless if healthy, harmful if contaminated. In the extirpation of the organ, care should always be taken to make ligatures preceding the incision to avoid hemorrhages and out-flow of the juice. The thermocautery and galvanocautery should not be employed, because neighboring parts may be injured by radiation of heat and by scar pressure.

MAYO ROBSON, Leeds, read a paper on "Pancreatic Surgery." He believes that pancreatic affections are more common than generally supposed. He dwelt on the importance of posterior drainage in acute or suppurative pancreatitis. He has seen fifty-nine cases of cancer of the pancreas, which rarely occurs under 40 years of age. He calls attention to the importance of distinguishing between cancer of the head and tail of pancreas. Hopeless prognosis should not be given till surgery has been tried. For pancreatic cyst he advocates incision and drainage, which he has done in four cases with three recoveries. Pancreatitis he divides into suppurative, hemorrhagic and gangrenous. Bacterial infection is the immediate cause, but gastroduodenal catarrh, injury, and biliary lithiasis must be considered. Chronic intestinal pancreatitis is an important disease and is often mistaken for cancer of the head of the pancreas. The author believes that the time will soon come when disease of the pancreas will be given the attention that it deserves.

PROF. DIEULAFOY, Paris, in the section on Internal Pathology, read a paper on "Gastric Ulcerations," in which he notices the prominent types of gastric ulcers, the minute erosion, and the still larger mucosal abrasions—exulceratio simplex—both of which may cause hematuria and in the latter case sometimes fatal ones—the simple ulcer of Cruveilhier (ulcus simplex) with a tendency to hemorrhage and perforation. The specific ulceration of tuberculosis and syphilis may end as this form. Cancer may result from gastric ulcer. The pathogeny of these lesions is not yet fully elucidated; their treatment varies according to the case, medical, specific or surgical.

EWALD, Berlin, in consequence of the resulting perigastritis, considers that surgical interference is the only good treatment.

COHNHEIM, Berlin, mentioned the use of large doses of oil in organic or functional stenosis of the pylorus and duodenum.

MATHIEU, of Paris, read a paper on "Treatment of Mucomembraneous Colitis," in which he said that constipation is the rule in this disease; indeed, it may be both the cause and effect. A neurotic predisposition intensifies it. Locally, the nervous habit brings on hyperesthesia of the intestines generally and vitiates their mobility; this is especially the cause of the spasms. The disappearance of constipation is at once the sign and warrant of cure. He employs means of cure which do not augment the irritation of the secretions, the painful phenomena and the tendency to spasm. Castor-oil, lavage and belladonna are especially useful. The latter calms the pain and combats the tendency to spasms; more rarely is opium or its derivatives used.

BOAS, of Berlin, read a paper on "Symptoms, Diagnosis and Clinical Course of Mucomembraneous Colitis," noticing three forms, viz., catarrhal, mucous colic, and artificial mucomembraneous colitis. The symptomatology is colic, constipation, spasmodic atony of the intestines, membraneous masses in the stool and a general nervous state. The only constant symptom is constipation, and that with the characteristic mucus is the only thing that is pathognomonic. The diagnostician must determine whether it is an idiopathic or complicating affection, and it is also of importance to find the artificial cause. Differential diagnosis is only possible between mucous colic and the other form. The clinical course is parallel to that of habitual constipation. What will correct one, cures the other.

LANGENHAGEN, of Plombières, regards pains as absent in one-fifth of the cases.

NETTER, of Paris, stated in a paper on "Acute Non-Tuberculous Meningitis," that we should not insist too strongly on the value of Kernig's sign, namely the impossibility of completely extending the legs when the patient is sitting. This sign seldom fails in non-tuberculous cases, and is observed in the majority of tuberculous cases, hence we can not rely on it as a means of establishing the nature of meningitis. Quincke's lumbar puncture furnishes for diagnosis of meningitis the best instruction. It presents no seriousness provided the withdrawal of the liquid is not made too suddenly. The diagnosis of meningitis will be evident if the liquid is turbid or purulent, or if it contains clots. Very often the liquid drawn appears at first quite clear, but it nevertheless immediately forms a fibrinous coagulum. The hot bath, introduced par Aufrecht, constitutes an excellent means of treatment. In suppurative cases repeated lumbar punctures will render service.

KÜSTER, of Marburg, read the first paper in the symposium on "Conservative Operations in Renal Retention" in the Section of Urinary Surgery. After defining the various causes leading to retention of urine above the bladder, he detailed four groups of conservative procedures: viz., nephropexy, anastomoses, plastic operations with and without resection and partial resection of the kidney.

FENGER, of Chicago, was not present. His paper was read by Turck, of Chicago. [It will appear in an early issue of THE JOURNAL.]

BAZY, of Paris, read a paper on the same subject, in which he detailed the obstructions and the means of their removal with critical comments on the various procedures. He considered that the operative results warranted conservatism in this class of cases.

MANQUET, of Nice, discussed in the Section of Therapeutics the use of sodium sulphate in dyspepsia. It is useful in constipation in small doses, but its prolonged use is attended by danger.

BLONDEL spoke of the use of thymus in chlorosis, exophthalmic goiter and congenital debility.

DESCHAMPS, of Rennes, read a paper on the treatment of obesity.

A dinner was given by Pinard and Terrier at the Grand Hotel, at which 120 guests were present. Speeches were made by Zweifel, Terrier and Baldy.

PROFESSOR LANNELONGUE, President of the International Medical Congress, gave a reception at the Galerie des Champs Elysées Friday evening, to which some Americans with their families were invited. The entertainment provided included music and dancing by the ballet of the Opéra Comique.

BOECK, of Christiania, opened the proceedings of Saturday in the Section on Dermatology with a paper on the "Tuberculides." In opening the discussion on this new doctrine, it is necessary, he said, to distinguish facts from hypotheses. It is established that a series of cutaneous affections exists in tuberculous patients, the constancy of which has been so marked that the affections have been considered to have the same causal relation. The Koch reaction in these cases is, however, inconstant. Hallopeau has given to these the name "toxi-tuberculides." He places these tuberculides in two principal groups: 1. Varieties generally perifollicular and superficial, in a part of which the bacillus is found. This includes lichen scrofulosorum, papulo-squamous and perifollicular pustular tuberculides. 2. Varieties generally not perifollicular, as a rule localized in the skin and in which the bacillus can not invariably be found. This includes lupus erythematosus, papulo-neurotic and nodular tuberculides. There are a number of diseases which it is as yet impossible to group, although they are commonly considered tuberculous. These are acne, indurated erythema of Bazin, angiomatous tuberculides of Leredde, subacute exfoliative dermatitis, and pityriasis rubra of Hebra. He concludes that the limits between cutaneous tuberculosis and cutaneous tuberculides are not clearly defined, and that there is no theoretical or practical reason for placing cutaneous tuberculides in a group by themselves.

CAMPANA, of Rome, believes that it is possible to distinguish clinically between a tuberculide produced by toxins and one produced by the bacillus.

DARIER, of Paris, after describing the varieties, etiology, bacteriology, clinical symptoms and pathologic anatomy of the tuberculides, speculates on their pathogeny. He thinks the theory of unknown microbes has no foundation; that the toxin theory does not explain all the facts. The remaining hypothesis is that they are caused by embolisms of attenuated and slightly virulent bacilli reaching the skin by way of the blood channels and then succumbing to the bactericidal influence of their environment. The discussion was participated in by Riehl, of Leipsic, and Lang, of Vienna, who advocated the extirpation of lupus; Finsen, of Copenhagen, who spoke of the treatment by luminous rays; Dubreuilh, of Bordeaux, who mentioned the nasal origin of lupus, and J. Nevins Hyde, of Chicago, who made observations on blastomycetic infections.

RICHELOT, of Paris, read a report in the Section of Gynecology, on the "Surgical Treatment of Cancer of the Uterus." He believes the vaginal, the route of choice in most cases. The abdominal route has a limited utility, but when applied to invading cancers it is an imprudence, and for limited cancers an illusion. In one, we have an operation always incomplete and only by necessity palliative. By the other route all is removed.

D. DE OTT, of St. Petersburg, believes that in every case of cancer, in any part of the uterus, the organ should be extirpated, preferably by the vaginal method. Morcellement is a great surgical advance in the treatment of large cancers. He prefers not to close the wound, but applies a light iodoform gauze tampon. He thinks that by this means the mortality of vaginal hysterectomy can be reduced to the minimum, and during the last six years he has obtained a radical cure in 10 per cent. of his cases.

THOMAS S. CULLEN, of Baltimore, read a paper on "Treatment of Carcinoma of the Uterus." He referred to the improvement in the operation for carcinoma of the uterus, commencing with amputation of cervix as practiced by Schroeder, abdominal hysterectomy, as done by Pawlik and Kelly; and the radical operation including the iliac glands. Cullen pointed out the danger of implanting carcinomatous into healthy tissue, as is very likely to occur when the radical operation is made. He described the operation in full as made by X. O. Werder, of Pittsburg, in which the chance of implanting carcinomatous tissue is reduced to a minimum. This operation is advised in all cases unless the patient is stout. In adenocarcinoma of the body of the uterus the same operation may be performed, but here the wide removal of the vaginal mucosa is not necessary. An analytic report was made of 176 cases of carcinoma of the uterus, occurring in Johns Hopkins Hospital during the past six years. The prognosis is most favorable in adenocarcinoma of the body; least favorable in adenocarcinoma of the cervix.

PARIS, August 6.

MASIUS, of Liège, in the Section of Internal Pathology, on Monday, read a paper on "Pathogenesis of Acute Pulmonary Edema." The theories of pathogenesis are three in number: 1, the purely mechanical theory, which should be rejected; 2, the opinion of Hamburger and Heidenhain, who consider the lymph-formation a secretory act and the edema merely an exaggeration of this function; 3, the theory of Starling, Winter and Théaulon, who attribute it to modifications of osmosis between liquids in different parts of the area, and to variations in the permeability of the wall. Clinically, pulmonary edema appears in three forms: 1, inflammatory edema; 2, static edema, and 3, toxic edema.

TEISSIER, of Lyons, declares that a special morbid syndrome exists to which can be given the name of acute edema or serous apoplexy of the lung. It is preceded by a tickling in the throat, painful intrathoracic tension, violent dyspnea, spasmodic and continuous cough, rusty sputum, fine râles, etc. The provocative cause is still to be determined. It may be infection or previous intoxication. Acute and chronic pulmonary edema differ in pathogenesis, symptomatology and prognosis. It may be said that the gravity of an acute pulmonary edema is dependent on the functional activity of the kidneys. He concedes that bleeding is of unquestionable utility in these cases, recommends rectal administration of carbonic acid gas, and thinks that oxycarbonated nitrite of amyl may be employed with advantage. Atropin, morphin and operative procedure he believes valueless and dangerous.

VON BASCH, of Vienna, asks and answers the following questions: Under what conditions may pulmonary edema be experimentally produced? What is the nature of the process which causes it? What are the secondary consecutive causes? What is the relation between pulmonary edema, dyspnea and cardiac asthma? What is the relation between pulmonary edema and muscular insufficiency of the right heart?

HUCHARD, of Paris, urged the value of venesection, MARKLEN spoke of uremia in connection with pulmonary edema, and DIEULAFOY, of Paris, of acute nephritis as a complication.

PERIER, of Paris, in the Section of Surgery, reported two cases of old contusion of the head with formation of abscess, in which he trephined with good results. NANU, of Bucharest, advocated temporary craniectomy in case of abscess. KRAUSE, of Berlin, reported twenty-four cases of intracranial excision of the trigeminus with two deaths, and with good results in the remainder.

JONNESCO, of Bucharest, had excised the cervical sympathetic in 126 cases of epilepsy, exophthalmic goiter, glaucoma, etc.

CHIPAULT, of Paris, reported forty cases of this kind, and 147 vertebral fractures. These statistics were most interesting and indicated the value of modern operative procedure in this class of injuries.

O. LASSAR, of Berlin, opened the discussion on Alopecia in the Section of Dermatology on Saturday. He remarked that alopecia has increased progressively during the last ten years. In the case of alopecia areata, there is no predisposition nor is there special resistance in individual cases. Immunity to this condition can not be acquired. Its etiology still awaits a definite explanation. The treatment of alopecia areata is still empirical, founded on a hypothesis, the trial of which has given the most favorable results. Many methods from sublimate and carbolic acid to electricity in its divers forms have been employed with success.

NORMAN WALKER, of Edinburgh, presented the views of British dermatologists on alopecia. He acknowledged the indebtedness of the profession to Sabouraud, of Paris, for his researches on the subject. There are occasionally cases of this disease which are apparently dependent on nerve influence. Hutchinson, of London, regards alopecia areata as a sequel to ringworm; while Crocker, of London, considers that most of

the cases diagnosed as alopecia areata are in reality unrecognized cases of ringworm. The infective theory has a strong clinical backing. Dr. Thin, of Scotland, made observations in this direction many years prior to the brilliant work of Sabouraud. In the essayist's observations he has not succeeded in getting the brick-red growth, but has a growth of a deep brownish-black color, apparently due to another organism.

SABOURAUD, of Paris, classifies alopecia as follows: 1, infectious; 2, traumatic cicatricial; 3, cicatricial, following inflammatory lesions; 4, diffuse progressive. There are two clinical types, the ophiasic of Celsus and seborrheic of Bateman. He considers this subject one of the most obscure in dermatology, and one which, in the absence of new technical experiments is likely to remain in obscurity for a long time.

LESSER, of Berlin, opened the discussion on the "Causes of Generalized Infections in Blennorrhagia" by saying that generalized infection in blennorrhagia was often encountered in cases attended with complications. The posterior urethra is most often attacked in men. It seems to predispose to general infection, for patients who once have had a general infection are attacked by it anew at each attack of blennorrhagia.

A. H. WARD, of London, discussed the causes of the generalized infections by the gonococcus, which he said could not be separated logically from the local focus whence it originated. There is a continuous interaction, and the persistence of the local disease aggravates the general condition. After study of the process of the struggle for life between the microbe and the human organism, a plan of action for prevention and cure must be deduced. It is still *sub judice* whether the diplococcus of Neisser and its toxin is the sole cause, or whether this infection paves the way for other organisms. Gonorrhea and its associated pathological states are due to the presence of microbes and their toxic products. He had encountered generalizations in 12 out of 2000 cases, or .6 per cent. In closing, he quotes Neisser's words: "It is surely beyond a doubt that the frequency of complications depends on the method of treatment."

F. BALZER, of Paris, stated that general blennorrhagic infection is caused by the blennorrhagic virus, the gonococcus and its toxins which pass into the circulation. It is manifested by general symptoms and by new localizations of the blennorrhagia, sometimes by true pyemia analogous to those caused by pyogenic bacteria. These microbes may be found associated with or superadded to the gonococcus in generalized infection. He then considered the manifestations in which the rôle of the gonococcus was less direct, namely, nephropathies due to general blennorrhagic infection; cutaneous manifestations—erythema, purpura, cutaneous horns; and the various neuropathies. He sums up the subject by saying that the gonococcus is the pathogenic agent not only of mucous blennorrhagia, but also of the general infection. The latter results from direct penetration of the microbe into the circulation and the absorption of its toxins. Experimental research has shown that intoxication plays an important part in the genesis of the manifestations of infection, but the paucity of clinical research does not permit us clearly to differentiate between infection and intoxication. The cases are also too few for definition of the rôle of secondary infections. That rôle seems to be played more and more by the gonococcus.

NEISSER, of Breslau, in the same section, advocated dilatation as the best method for examining the urethra.

B. TARNOWSKY, of St. Petersburg, read a paper on "Hereditary Syphilis," and presented explanatory tables. He stated that the hereditary influence of the disease is manifested most strongly in the second generation, and that it so markedly decreases in the third generation that the manifestations can not be recognized as those of hereditary syphilis. In the fourth generation there is still further diminution, and therafter no manifestations occur.

E. FINGER, of Vienna, admitted the possibility of transmission of syphilis, not only to the first generation, but also to the second, and possibly to succeeding generations. The hereditary consequences of syphilis contracted by parents are true virulent syphilis, syphilotoxic and dystrophic affections and immunity.

JULLIEN, of Paris, considered the statistics of fecundity of hereditary syphilitics; fetal deaths and abortions; lesions of true syphilis; manifestations derived secondarily from syphilis; dystrophic stigmata; anomalies, malformations and monstrosities. He closed his paper with some theoretical views on the subject.

L. DUNCAN BULKLEY, of New York, in his paper on "Syphilis and Associated Infections," classifies the subject as follows: 1. Double, coincident primary infection—syphilis with a local disease such as chancroid or microbic infection, or with a general disease such as vaccinia, variola, erysipelas, measles, tuberculosis, lepra, malaria, typhoid fever or sepsis. 2. Double subsequent infection—syphilis antedating, with above diseases, seborrhoic eczema, psoriasis, lupus or epithelioma, or postdating, associated with the same diseases. The two infections may retard, accelerate or modify the normal course of either disease.

H. HALLOPEAU, of Paris, in his paper on the same subject, sums up as follows: Certain infections associated with syphilitic contagion may give place to various hybrids. These are the bacillus of simple chancre, the generative agent of epithelioma and rarely the tubercle bacillus. It is possible but not yet scientifically demonstrated that mixed infection by syphilitic contagion and pyogenic microbes may cause suppurative syphilides which might be called strepto-syphilides, staphylo-syphilides, etc. The retention of pyogenic microbes associated with syphilitic contagion and of their toxins may modify the character of the syphilomata—ulcers, vegetations, rupia, etc.—and may create para-syphilitic affections with grave complications. The concomitance of some generalized infections may temporarily modify the course of some febrile disorders and especially of erysipelas.

The second general assembly was held on August 6. In the absence of Professor Pavlov, his address was read by Docent Dr. Lithatchef, of St. Petersburg.

PROFESSOR BACCELLI did not address the Congress on account of the assassination of King Humbert.

SIR JOHN BURDON SANDERSON, of Oxford, delivered an address entitled "Certain Pathological Problems of the Day."

DR. A. JACOBI, of New York, addressed the Congress on "Medicine and Medical Men in the United States." (Dr. Jacobi's address will appear in an early issue of THE JOURNAL.)

The success of the evening reception at the Palais du Luxembourg was marred by bad weather, so that the garden fête could not be held. The reception halls were overfilled by the enormous crowd. The reception was supplemented by a musical performance by the artists of the Opéra Comique and by a theatrical performance by the members of the Théatre Francais.

PARIS, August 7.

PINARD, of Paris, in the Section on Obstetrics, read a paper on the "Puerperium;" Hagapoff, on "Regimen as a Means of Preventing Diseases of Pregnancy;" Bouffe, of Paris, on "Eclampsia Without Albuminuria, Before or After." Mangiagalli read an article on "Treatment by Veratrum. Dvorak discussed "Venesection and Saline Injections." Perret spoke of "Forceps with Parallel Branches." Calderini treated of "Hydatidiform Mole."

ARNAUD read a paper on "How Progressive Paralysis Ends." Tachnisch read one on "Syphilis as Cause of Progressive Paralysis;" and Lalanne on "Spontaneous Fracture in Progressive Paralysis."

In the Section on Gynecology, DE OTT, of St. Petersburg, treated of "Second Vaginal Method in Conservative Myomectomy;" Gottschalk and Delagenière of "Ligation of Arteries;" Pozzi, on "Limits of Myomectomy," and Tuffier, on "Abdominal Myomectomy."

In the Section on Internal Pathology, Villard treated of "Pneumonia and Bronchopneumonia." Widal, of Paris, had an article on the "Spleen and Its Affections." Papillon read a paper on "Bacteriology of Rheumatic Fever."

VON BERGMANN, of Berlin, in the Section of Surgery, stated in a paper on "Radiography in the Study of Fractures and Luxations," that the subject of fractures had made during the last ten years two important steps: 1, the operative treatment of certain simple fractures by exact coaptation of the

fragments, and 2, the diagnosis of the point of fracture and the condition of the bony lesions by means of radioscopy and radiography. Examination of recent patellar fractures shows, with the aid of the Roentgen rays, three obstacles to a complete cure: 1, the inequality of the two fragments; 2, multiple fragments; 3, the two fragments become displaced, with respect to one another, by a movement of rotation. Von Bergmann has obtained in his clinic, with the aid of the X-rays, in more than twenty-five cases of this kind, a complete bony consolidation. Fractures of the bones of tarsus and metatarsus were almost entirely unknown before the invention of radioscopy.

MAUNOURY, of Chartres, discussed the same subject as Von Bergmann. He said that the radiograph was useful in all fractures, especially those of the ankle. The formation of callus is very interesting to study by means of radiography. The duration of its formation is variable; it appears longer, the thicker the bones. In certain cases, notably in oblique fracture of the tibia, the callus may remain a long time invisible, even when the consolidation is complete. The discovery of Roentgen, though of less utility in luxations than in fractures, will often be found of service.

CHAMPIONNIÈRE, of Bordeaux, followed with a paper on "Massage and Fractures."

In the Section on Therapeutics Kleckowsky read a paper on "Ergotin in Pneumonia," and Ehlers concluded the papers for the day with one on "Treatment of Leprosy by Arsenic and Iron."

PARIS, August 8.

In the Section on General Pathology Ewald treated of "Autointoxications;" Claude and Balthazard took up the subject of "Toxicity;" Smèraglia read a paper on "Pathogenesis of Uremia," and Charrin delivered "Remarks on Eclampsia." These papers were discussed by Ewald and Leube. Lenoir read an article on "Extrabuccal Alimentation;" Herard, on "Action of Milk on Gastric Chemistry;" Delbet, on "Pathogeny of Varicose Veins;" Tuffier, on "Pulmonary Surgery;" Guilleminot, on "Technique;" Finsen, on "Phototheraphy;" de Schweinitz, Washington, on "Work on Tuberculosis in the United States."

In the Section on Internal Pathology Furster read a paper on "Raw Meat as Treatment for Consumption;" Donahue, of Syracuse, on "Milk of Tuberculous Cows the Chief Danger." The latter reported a large number of communications on the subject. Labodie, of New York, gave a "New Method of Treatment of Consumption," by direct transfusion of drugs into the tubercular spots.

In Pediatrics, Barbier read a paper on "Gravity of Acute Rheumatism in Children and Consequent Heart Affections." Brunon, of Rouen, discussed "Alcoholism Among Children of Normandy."

In Psychiatry, Korsakof, of Moscow, spoke on "Rest in Bed as Treatment of Acute Forms of Folly."

In the Section on Neurology, Ferrier, of London, and Roth, of Moscow, discussed "Diagnosis of Organic and Hysteric Hemiplegia."

Ricard started, on Wednesday, the work in the Section on General Surgery. He was followed by Sorel, of Havre, and Weir, of New York, on "Appendicitis." Oehsner, of Chicago, read a paper on "Elimination of Appendix."

"Radiography in Obstetrics" was discussed by Focher, of Lyons, Varnier, Maygrier and Bouchacourt.

TERRIER, in the Section on Gynecology reported "Two Hundred Abdominal Hysterectomies." Clarke, of Boston, read a paper on "Surgical Treatment of Inflammatory Condition of Fallopian Tubes," and A. Palmer Dudley, of New York, read an article on "Conservative Operations on Ovary."

The reception and fête announced to be given by the president of the Republic, at the Palais de l'Elysée on Thursday was not held, but a reception was tendered the members of the Congress by the Municipal Council of Paris in the Salons of the Hôtel de Ville on Saturday afternoon.

The third general session will be held on Thursday for the election of officers and the selection of the place of meeting for the Fourteenth International Medical Congress.

Miscellany.

Typhoid Fever in Paris.—An epidemic of typhoid fever holds sway in Paris. Drs. Thoinot, Martin and Miguel have been investigating the subject, and the water-supply from the River Vanne seems to be the cause. In 1899 the number of cases was 4329, of which 398 were reported in the first ten weeks. During the same period in 1900, 891 cases were reported.

Mortality in India.—The Governor of Bombay reported to the Foreign Office, July 9, that there were 10,320 deaths from cholera and 6502 fatalities in the famine district during the last week in June. The total deaths among the numbers on the relief works in the British district were 5324. The number on the relief works is increasing rapidly in consequence of the drought. The number of those applying for gratuitous relief is increasing throughout the affected districts. The total number of persons receiving relief is 6,013,000.

The Journal Has Largest Circulation.—*Printers' Ink*, otherwise known as the advertiser's "School Teacher," in its issue of August, credits THE JOURNAL with the largest circulation of any medical weekly in America. It quotes the weekly average at 14,401 for twelve months ending March 1, 1900. While these figures are correct, they hardly do THE JOURNAL justice, as our weekly issue has been gradually increasing, and for the past six weeks the average is over 17,500 copies. This week we are issuing over 17,750.

Congress of Professional Medicine.—"The struggle for existence has become so severe for physicians in all countries, and they are so constantly assailed by a crowd interested in caluminating them, that they have at last felt the need of meeting and talking things over among themselves—what they have always felt, but never dared to speak aloud before." These are the opening words of an editorial in the *Gazette Méd. de Paris*, deploring that the membership of the Congress of Professional Medicine, which convened July 23, was not representative of the majority of practitioners, owing to the systematic and inexplicable holding aloof of many French and foreign physicians. "Every time anything novel is attempted, any effort made to change the old routine, it is like throwing stones into a frog-pond. All the more credit to the men of energy who have initiated the movement and set an example for the world to imitate!"

Railway Accidents.—The official figures given out by the Interstate Commerce Commission for the year ending June 30 show that during this period there were all told the sum of 51,743 casualties resulting from railway accidents. Of this number 7123 persons were killed and 44,620 were injured. The number of trespassers killed and injured was quite large, there being 4040 killed and 4730 injured. The number of admitted passengers killed was 259, and the number injured was 3442. During the previous year there were 221 killed and 2945 wounded. The ratio of those killed to those who traveled was 1 person to every 2,189,023. Of the employees 1 out of every 420 was killed, while 1 out of every 27 was injured. Of the persons working on locomotives 1 was killed to every 165 persons. In New York State, where safety brakes have been employed, there were 260 persons killed as against 279 for 1898, and 6725 injured against 6988 for the previous year.

Presentation of Statuary.—Dr. Paul Richer, of Paris, has presented the Académie des Sciences with a bronze group of three runners, modeled on cinematograph pictures, taken at the Racing Club and elsewhere. They reproduce the three most typical attitudes, and the *Gaz. Méd.* adds that it is amazing to note how perfectly they harmonize with the Greek antiques.

Prizes Offered by Mexican National Academy of Medicine.—A prize of 500 pesos will be awarded for the best original work in Spanish, on either of the following subjects: "Nature of Remittent Fevers Observed in the Mexican Mesa," and "Diagnosis and Treatment of the Different Varieties of Intestinal Occlusion."

Paraffined Waterproof Cloth.—Cathoire announces that all fabrics and garments can be rendered absolutely waterproof by being dipped in a mixture of two parts paraffine—

melting at 52 C.—and one part vaselin dissolved in kerosene—25 gm. to the liter. The expense is about a franc for an entire uniform. He mentions in his communication to the *Revue d'Hygiene*, 1900, p. 296, that one of the most important advantages is the absence of the extra weight of wet garments. The mixture does not interfere with the evaporation from the skin, as the garments thus impregnated showed no traces of moisture on the side toward the body. Pieces of paraffined cloth were sterilized in the oven without injury.

Antimalaria Campaign in Italy.—The mowing, reaping, and plowing of the Pontine Marshes and other extensive tracts in Italy claims hundreds of victims as the laborers flock to these hotbeds of malaria. A campaign has been instituted this year against the infection, and eight ambulances have been sent out by the Red Cross Society to apply preventive and curative measures. The portable shelters for the workmen are to be protected against mosquitos, and also many of the houses of the station agents along the railroads, as the experiences in this line last year were highly instructive. The government also plans to supply the peasants in malarial districts with protections against mosquitoes.

Determination of Sex.—The conclusions of the latest German writers are that the sex is already decided in the ovary, as has been conclusively shown for bees and certain lower forms of life. The only means by which the determination of sex can be influenced is by the nutritional processes in the ovary. Disturbances in the ovary in this line, dating possibly from fetal or infant life, seem to determine a preponderance of male ova, while abundant, normal nutritional processes favor the production of females. Ploss has noted a coincidence between the higher prices of provisions and the larger number of boys born. Schenk, on the other hand, considers the female offspring the evidence of nutritional disturbances, as several mothers of boys gave birth to girls after symptoms of diabetes were first observed, which was the origin of his famous method of sex determination.

New Antituberculous Journal.—We have received the first number of *L'Oeuvre Antituberculeuse*, a quarterly that has been started with a view to arouse interest in the various public and private institutions that have been inaugurated in France in the campaign against tuberculosis. The Hauteville sanatorium is described and illustrated, among others. The three buildings face the south, southeast and east; the triangular spaces between them are filled in with a sheltered and covered piazza open only toward the front of the buildings, which thus enclose a large sheltered space. The Guelpa pocket cuspidor is supplied the patients. The communications assert that a consumptive is more cheerful when with other consumptives than when living at home or with healthy people.

Laveran's New Stain for Malarial Blood.—The new staining process used by Laveran is described in full in the *Comptes Rendus* of the *Soc. de Biologie*, June 9. It is extremely delicate, simple, easy and reliable, and stains the nuclei deep violet; the reds are pink, the protoplasm of the parasites is a pale blue, the chromatin violet red. He has been successful with preparations of dried blood several years old. Three fluids are rerequired: 1, silver oxid methylene blue, or "Borrel blue." This is prepared in a flask of 150 c.c. of distilled water. When the crystals are dissolved, the flask is filled up with a solution of soda and shaken. A black precipitate of silver oxid is deposited, which is washed to free it from traces of azotate and soda. An aqueous saturated solution of medicinal methylene blue is then poured over it and left for seven or eight days, shaking from time to time. No. 2 is an aqueous solution of eosin at 1 per thousand, and No. 3, a 5 per cent. solution of tannin. A bit of camphor in each vial will prevent mold. The specimen of blood dried in a thin layer is fixed with absolute alcohol for about twenty minutes. The stain is mixed just before using, in the proportion of 4 c.c. of the solution of eosin; 6 c. c. of distilled water and 1 c. c. of "Borrel blue." The fluids are filtered separately as they are poured into the graduated test-tube, stirred, and then transferred to a porcelain crucible. The slip holding the blood is placed on top of the fluid, so that the blood rests in the fluid as the slip floats. Five to ten minutes is sufficient to stain the chromatin of most hematozoa, especially that of malaria, but several hours are necessary for the endoglobular parasite of birds. When the stain is deep enough the preparation is rinsed and treated with the solution of tannin for a minute, then rinsed again and dried. If the stain is too intense wash with alcohol before mounting in balsam.

A New Movement for the Organization of Private Asylums.—The Association for the Study and Cure of Inebriety held a meeting June 17, at Greenwich, Conn., for the purpose of securing a thorough organization of all private asylums which treat mental diseases and drug cases. It was claimed that there are nearly a hundred asylums, homes and sanitariums in the New England and Middle states for the treatment of inebriates, mental and nervous cases, over half of them being charlatan in their boasted specific cures and advertised nostrums. Such institutions are without organization or system, and appear and disappear continually. They are without state or local license or supervision, and are managed by unknown persons, and the public is unable to discriminate between them and reputable institutions. They claim exemption from all supervision from the fact that their patients suffer from alcohol, opium, and other drug poisons, which are not recognized as other than moral disorders. There is no restraint to prevent any who desire from opening homes and sanitariums for these cases. In nearly all these states, institutions for the treatment of mental cases with drug habits are licensed and come under the supervision of the authorities, and have some reputation and standing in the community to secure patronage. A large number of representatives of different asylums were present, and the following propositions were agreed upon as representing the objects of this meeting: 1. To promote the scientific study of alcohol, and other drug neuroses, and to encourage desirable and special legislation with reference to the care and control of such cases. 2. To isolate the chronic, pauper inebriate from the insane and criminal class, and secure the erection and maintenance by the several states of institutions for the segregation and special treatment of chronic, pauper inebriates, and to incorporate farm colonies or other forms of institutional relief which shall combine medical care with occupation, control, and discipline. 3. To secure in all states the special supervision and inspection of all institutions for the care and control of inebriates and other drug neuroses. 4. To discourage and prevent all efforts to treat alcoholic inebriety or the opium and the other drug addictions with secret drugs and so-called specifics and to prohibit the sale of all nostrums which claim to be absolute cures and which contain alcohol, opium, or its alkaloids, or other pernicious and harmful drugs, or which contain substances which are inert and are fraudulent impositions on the public. 5. To encourage as an association every individual and organized effort to study scientifically and practically all the various means and methods of both cure and prevention which are found valuable in the treatment of alcohol and other drug addictions. 6. There are many institutions in this country which treat the alcoholic and other forms of drug addiction associated with mental and nervous cases. These institutions should all be organized and follow some general principles and methods of practical work. By this means public opinion could be more effectually influenced and legislation secured, resulting in a great advance in the uniform scientific treatment of these cases. 7. We urge all asylums and institutions to unite with us in an effort to raise the subject of the medical treatment of these borderland cases out of the realm of quackery into that of exact scientific work, and in this way be able to treat these obscure, diseased conditions in a rational way and along rational lines.

These propositions were unanimously indorsed and another meeting was projected in October at Hartford, Conn. The Secretary, Dr. T. D. Crothers, of Hartford, Conn., solicits correspondence from those interested.

Registration of Yellow-Fever Non-Immunes.

Under date July 3, 1900, Major Francis J. Ives, surgeon U. S. Vols., chief surgeon of the Department of Matanzas and Santa Clara, Cuba, caused the following order to be published as a precautionary measure against the spread of yellow-fever in the Department during the present summer:

The mayors of the following cities, Matanzas, Cardenas, Colon, Cienfuegos, Santa Clara, Trinidad, Sancti Spiritus, Sagua la Grande, Caibarien, Placetas and Remedios should be required at once to prepare a list of all non-immunes, exclusive of the officers and soldiers of the United States Army, but including the families of the above, and all civilian employees. In order to obtain this list a proclamation should be issued by the mayor requiring every non-immune to be registered, stating in each case the full name and address, and whether an adult or a child, all persons over 16 years being considered adults. In this proclamation the necessary measures for securing this information should be embodied. It should be clearly stated that any adult failing to comply and be registered at the end of ten days after the date of the order would be fined at one dollar for every day that he or she remains unregistered, and the parent or guardian of any child will be fined an equal amount for all children not registered, in the same manner, and amount as above.

The term *immune* should be construed to mean all natives of the Island of Cuba, all foreigners who can establish a residence of at least ten years on the island, and all others who can produce a certificate from a reliable physician that they have had yellow fever. The term *non-immune* signifies any person who is not an immune, as above described.

The proclamation should be written in both Spanish and English, and conspicuously posted on the bulletin boards in front of each alcaldia; in addition it should also be advertised in the local papers.

2. Should yellow fever appear in any of the towns in this department to an extent sufficient to create apprehension of its being exported, the chief sanitary officer of the department will notify the mayor of the affected town to permit no non-immune to leave the town without previously notifying the mayor in writing of the date of such departure, and the destination. The mayor, upon being thus notified, will at once notify by telegraph the mayor of the town to which the non-immune is going. The latter mayor will, upon the arrival of the non-immune, ascertain his address, and cause his chief sanitary officer, or one of the municipal physicians, to investigate and keep the case under observation until the period of infection has passed. Should the non-immune be an officer or soldier, the commanding officer of the garrison from which he leaves should be required to notify the commanding officer of the garrison in the town where the non-immune is going, and the military surgeons be required to take the necessary precautions. Should a non-immune of the latter class be going to a town where there is no garrison, the commanding officer will notify the mayor of such town, who will take the same measures as in the case of those not connected with the military establishment. Should any non-immune arrive from an infected town at any of the seaport towns, the quarantine officer of the port should be at once notified of that fact by the local municipal authorities, or by the military authorities in case of an officer or soldier or a member of the family of an officer or soldier.

There should likewise be a punishment for all non-immunes failing to give the proper notifications to the municipal authorities, consisting of appropriate fines or imprisonment, or both.

Societies.

Coming Meetings.

American Academy of Railway Surgeons, St. Paul, Minn., Sept. 5-6.

American Association of Obstetricians and Gynecologists, Louisville, Ky., Sept. 18-20.

American Electro-Therapeutic Association, New York, N. Y., Sept. 25-27.

Medical Society of the State of Pennsylvania, Wilkesbarre, Sept. 18.

BUCKS COUNTY (PENN.) MEDICAL SOCIETY.—This Society held its midsummer meeting in Bristol, August 1.

LEHIGH (Pa.) MEDICAL ASSOCIATION.—The twelfth annual conversational meeting of this Association was held in Allentown on July 25. Among those present were Dr. John B. Roberts and Dr. Boardman Reed, of Philadelphia. The next meeting will be held in Reading.

BAR HARBOR (ME.) HOSPITAL CLUB.—The annual meeting of this Club was held on Wednesday, July 11, 1900. Dr. John B. Shober, Philadelphia, was elected president; Dr. E. J. Morrison, Bar Harbor, secretary and treasurer, and Dr. H. D. Averill, Bar Harbor, executive officer for the ensuing year.

ROCK RIVER VALLEY MEDICAL ASSOCIATION.—This Association met in Dixon, Ill., July 25. The following officers were elected for the ensuing year: president, George Proctor, Coleta; vice-president, C. M. Cheadle, Lee Center; secretary, C. S. Murphy, Dixon. The next meeting will be held in Polo, December 26.

SOUTHWESTERN IOWA MEDICAL ASSOCIATION.—This Association will meet at Glenwood, August 16. Dr. J. A. Rawls will deliver the presidential address. Papers will be read by Drs. M. B. Reed, Charles E. Stevenson, F. B. Dorsey, B. F. Gillmor, J. P. Lord, C. B. Powell, B. N. Torrey, J. W. Reynolds, M. N. Voldeng, B. L. Eiker, Arnold Jolly, D. Macrea, Jr.

THE CANADIAN MEDICAL ASSOCIATION will meet in Ottawa, September 12, 13, and 14. It is announced that, in addition to Mr. Edmund Owen, of London, Eng., Dr. F. Shattuck, Professor of Clinical Medicine in Harvard, will address the meeting. It is also expected that Drs. Nicholas Senn, of Chicago; Allen McLane Hamilton, and A. G. Gerster, of New York, will be present. The address on "Gynecology" will be delivered by Dr. William Gardner, of Montreal.

SOUTHERN MINNESOTA MEDICAL ASSOCIATION.—This Association held its annual meeting in Winona, August 1. The following officers were elected: president, E. D. Keyes, Winona; first vice-president, A. I. Baker, Byron; second vice-president, J. W. Scott, St. Charles; secretary and treasurer, W. T. Adams, Elgin. The secretary's report showed the society to be in a flourishing condition, having doubled its membership in the past two years.

San Francisco County Medical Society.

San Francisco, Cal., July 10.

President DR. E. E. KELLY in the chair.

PREVENTION OF PULMONARY TUBERCULOSIS.

DR. W. N. SULLIVAN presented a paper on this subject. He said that prophylaxis of tuberculosis includes the care of the individual predisposed to consumption, and embraces those general measures for the restriction of the dissemination of the bacilli among communities. The individual predisposed to the disease should be placed under auspices which will favor healthy development, such as correction of anemia, improvement of appetite and digestion, and proper hygienic treatment out of doors. Mouth-breathing should be corrected by removing obstructions in the nasopharyngeal tract. He advocated breathing exercises and the chest-weight machine as valuable measures in the development of the chest. The bicycle, by bringing the individual into the open air, has a distinctly beneficial effect. When tonics are necessary, he thinks that cod-liver oil and iron preparations would find their place in aiding the constitution to resist tuberculosis. He urged the necessity for a proper receptacle for sanitary disposition of the sputa, and recommended the use of the sanitary cuspidor constructed by Dr. Dettweiler, and modified by Dr. Knopf. All articles and utensils used by tuberculous patients in eating should receive the greatest care to prevent the infection of others. Public prophylaxis offers a field for work of the greatest usefulness. Institutions where large numbers of people are congregated, schools, prisons, insane asylums, workshops and factories, should have a close supervision with a view to limiting tuberculosis. The disinfection of rooms occupied by tuberculous patients should be made not only after their death, but should be carried out at frequent intervals during life. Much good has been done in the prevention of tuberculosis by societies formed for the purpose of distributing literature on the subject and giving lectures at intervals for the education of the masses in this respect. He thought that bovine tuberculosis is regarded as one of the chief sources

for the infection of man, for the reason that milk, butter and meat constitute the most important and universally used articles of food, and considered that in the war against tuberculosis efforts should be divided equally between the bacilli that are ingested and the bacilli that are inhaled.

EARLY RECOGNITION OF TUBERCULOSIS.

DR. CLARK J. BURNHAM detailed the well-known signs of early tuberculosis, such as clubbed fingers, emaciation, the capricious appetite, and cog-wheel respiration, which he considers of very qualified value, for they may be due to other causes; whereas the tenderness on percussion over the apex of the lung, lessened movement of the chest wall, abnormally clear percussion-note, broncho-vesicular breathing, relative and absolute intensity of the heart-sounds over the affected apex, and accentuation of the pulmonary sounds, are signs of more value. He considered family history a very important factor in interpreting the value of these signs and symptoms, but a history of exposure to tuberculous contagion more important. Pronounced anemia, without apparent cause, early menstruation, dyspnea and pain in the thorax made worse by exercise, abnormal dwarfishness—not under weight, but a lack of symmetry and development—dyspepsia, intermittent albuminuria, and slight attacks of hemoptysis, produced by hyperemia, are apt to occur during the early stages. An early diagnosis, however, is not easily arrived at. The tubercle bacillus appears in the sputum at a comparatively late date. The general and local symptoms mentioned do not offer absolute certainty so long as no bacilli are detected, hence any additional diagnostic signs must be of considerable value if they are decisive and involve no danger to the patient. He considered the tuberculin test as one of the surest, as it gave positive reactions in 72 per cent. of more than 2000 suspected cases. There is no danger of rendering a patient tuberculous who is not already so, inasmuch as in tuberculin a bacterial toxin, and not an attenuated virus is used. The only possible risk is the aggravation of pre-existing symptoms as a result of the reaction in more advanced cases of phthisis. A sign of certain diagnostic value, he thought, was the one recently called to the attention of the profession by Dr. Thomas F. Harrington, Lowell, Mass., namely, the dilated state of the pupils. He urged the necessity of making careful and frequent examinations of the sputum, in the search for the bacillus tuberculosis.

TREATMENT OF TUBERCULOSIS.

DR. GEORGE W. FULLER dwelt at considerable length on the prophylactic treatment. He thought that great care should be taken regarding the right kinds of food for these patients, and that specific amounts should be taken at particular intervals, care being taken not to give too large a quantity at first. When digestion is weak, he frequently orders some medicinal aid, resorting to any and all reasonable measures within his power to supply the system with nourishment. He favors the morning bath, given with warm or tepid water, the temperature being gradually decreased according to the patient's strength, until it can be taken cold. At night a light sponge-bath of tepid water and alcohol, equal parts, is often refreshing. As the patient gains strength he advocates swimming, in salt water, if possible. He thought that if there was a specific for the cure of consumption, it was fresh air, and the patient must be taught how he can best get it into his lungs, and therefore advocated breathing exercises as the most essential part in the whole treatment of pulmonary consumption. The author's experience regarding specific treatment was too limited to express an opinion for or against its efficacy. Two of the most valuable remedies for the treatment of this disease he had found to be iron and arsenic. Strychnin and quinin are also of value. Phosphorus is a remedy that is often forgotten in the treatment of tuberculosis; it stimulates the brain and circulation, the functions of the stomach, and aids digestion. He thought that chloroform stood at the head of the list of drugs for inhalation, the objection to it being the difficulty of its safe administration. It is his opinion that if, in the future, a drug or medicine will be found that will have a specific action upon pulmonary tuberculosis, that remedy will be administered by inhalation.

Second District Branch of the New York State Medical Association.

Held at Schenectady, June 28, 1900.

President, Dr. E. D. Ferguson, of Troy, in the chair.

THE PRESENT STATUS OF THE STATE ASSOCIATION.

This was the topic of the President's Address. He said that in 1884 the New York Medical Association was organized. The reason for its organization was the fact that the State Society had modified its Code of Ethics, and had placed itself outside of the pale of fellowship with THE AMERICAN MEDICAL ASSOCIATION. The Code of Ethics is part of the organic law of the latter association, and up till 1883 was part of the organic law of the state society. At that time the alternative had presented itself of forming a new state organization or allowing the State of New York to be without representation in THE AMERICAN MEDICAL ASSOCIATION. The result was the establishment of the New York State Medical Association. The law of THE AMERICAN MEDICAL ASSOCIATION is that any one can become a permanent member through the subordinate state organization, but in order to retain their permanent membership they must continue their membership in the affiliated or subordinate body. Recently there had been a disposition to enforce that regulation, and consequently a good many men had been inquiring how they might become members of THE AMERICAN MEDICAL ASSOCIATION.

Last winter the New York State Medical Association secured from the New York State Legislature a charter, and, so far as the legal representation is concerned, the New York State Medical Association stands on a par with any other similar organization either within or without this state. This charter requires a reorganization of the State Association, and this power was given to the Council of that Association. The Council had met and re-elected all of the officers of the association. The proposed plan of organization was to organize throughout the state county organizations, to be in affiliation with the State Association. Whenever there are ten members in a county in sympathy with the State Association they are to form a subordinate county association, elect their officers, and increase their membership as they deem fit. These members will be likewise members of the State Medical Association, for, membership in the one carries with it membership in the other. Already the New York County Medical Association and the Kings County Medical Association had unanimously resolved to become subordinate counties of the reorganized State Medical Association, thus bringing the membership in the State Association at one jump up to 1200 or 1400. In May last the Erie County Medical Association was organized, and last winter the Genesee County Association voted to become a county association in affiliation with the State Association. Up to July 1 of this year all who join the New York State Medical Association are charter members. The committee on by-laws is now preparing the by-laws, a copy of which would be sent to every member throughout the state for careful and deliberate consideration before action is taken thereon.

The speaker then urged those present to become members of THE AMERICAN MEDICAL ASSOCIATION, pointing out the great value of THE JOURNAL, which, in itself, was well worth the sum paid for annual dues. A large membership, he said, in the national body was important, because of matters of importance in legislation which were constantly demanding the attention and exertions of a united medical profession, for example, the movement against vivisection, and the proposed national department of health.

DR. GEORGE E. MCDONALD, in a few happy and well-chosen words, welcomed the branch association to Schenectady.

NEW INSTRUMENTS.

DR. FERGUSON then presented a new director, which he had found useful in connection with vaginal hysterectomy. The object of the instrument was to isolate the broad ligament completely and at once, on one side. After separating the peritoneum and tissues in front of the uterus, the curved director is passed around the broad ligament, and the latter is then quilted off.

Another instrument presented by him was a pair of forceps for lifting up the uterus in the operation of ventral suspension. In many stout patients, those who take the anesthetic badly, and in cases having many adhesions, the suturing of the uterus to the abdominal wall was not always easy of accomplishment. One blade of these long, slender forceps is passed behind, the other in front of, the uterus, and the blades are locked, just as is done with the obstetric forceps.

SOME REMARKS ON THE SO-CALLED WIDAL'S REACTION.

DR. WILLIAM FINDER, Troy, said that Peffer had been the first to point out that serum might be introduced into animals which contained an antitoxin, and which produced immunizing effects. He pointed out that the toxin of the typhoid bacillus exists principally in the body of the bacteria, and is not demonstrable in the filtrate of a recent culture-fluid. He also pointed out that these antitoxins are very unstable. The serum of animals immunized with such a toxin contains antitoxins which possess a specific action against the typhoid bacillus, but have no such action on the colon or other bacilli. The great practical diagnostic value of the serum reaction was, however, first demonstrated by Widal. It was the part of prudence in performing this test to make sure that the typhoid bacilli of the culture-fluid are at the time in active motion, and that the dilution is at least one in ten. The test can be made with a microscope having only a magnifying power of 400 diameters, though it is much more evident when an objective giving nearly double this magnification is employed. Frankel, after an experience with two epidemics, believes the "hanging drop" the most rapid and accurate diagnostic method for use in connection with cases of typhoid fever.

The author then reviewed the literature at length. He said that Drs. H. M. Biggs and W. H. Park, of New York, had examined 200 cases. Of the 140 in which the final diagnosis was typhoid fever, the reaction was obtained in 100, and of the 57 in which the final diagnosis was other than typhoid there were 57 negative results. These observers claim that a positive diagnosis can be made from the Widal reaction in 50 per cent., and a probable diagnosis in about half of the remainder. J. M. Anders and McFarlane had reported on 250 soldiers supposed to have typhoid fever, in whom the Widal test had been made. Of this number, 219 gave a positive reaction, and 10 gave no reaction though tested repeatedly up to the time the temperature became normal. Of the 219 positive reactions, 128 were obtained before the appearance of the roseola; in 8 no reaction was obtained as late as the twenty-eighth day. In 2 the reaction was not obtained up to that time. The authors' conclusions were: 1. The agglutination is a phenomenon of infection which may be present in the very first days of the disease, and may not be demonstrable until toward the end of the first or second week of the disease, and in some very rare cases, has been absent. 2. It is a vital reaction of the microbe. 3. A negative reaction furnishes a probability that typhoid fever does not exist, but the positiveness of its non-existence should not be based on one test or on tests made a few days apart, but upon the examination of the case every other day up to the time of normal temperature. 4. A positive reaction obtained by the rules laid down should be considered a certain sign of typhoid fever.

DR. H. C. GORDINIER, Troy, said that during the past year three cases had come under his observation showing the great value of this diagnostic test. Two of the cases were acute tuberculosis, and one was a case of typhoidal pleurisy. The first case had come into the Good Samaritan Hospital in the second week of the illness, but several examinations for the Widal reaction had been negative. The whole course of the disease thereafter had been typical of acute miliary tuberculosis up to the time of death, but no autopsy had been obtained. The second case was seen in private consultation practice. This man gave a history of an undoubted typhoid fever three years before. No positive diagnosis had been made at that time. When seen about ten days later, there was great dyspnea, and a well-marked effusion on the right side of the pleural cavity. This contained an active motile bacterium, which was identified at the Bender Laboratory as the typhoid bacillus. The third case was one of acute miliary tuberculosis. He had first seen the patient with an enlarged spleen, tympanitic abdomen, and a temperature of 101 F., but no eruption. The temperature rose somewhat higher, but never excessively, and at no time did it resemble the typical range of typhoid temperature. Examination of the chest was absolutely negative. The Widal reaction was absolutely negative. Other physicians saw the patient, but no positive diagnosis had been made. After he had been ill about three months, he had developed the characteristic symptoms of an acute miliary tuberculosis. The case ended with symptoms of meningitis and death.

BLOOD EXAMINATIONS IN THE DIAGNOSIS OF TRICHINOSIS.

DR. H. C. GORDINIER made some interesting remarks on this subject, reporting illustrative cases.

DR. WILLIAM FINDER said that these cases only emphasized in a very significant way the great value of blood examinations in disease in general. It was remarkable how one could differentiate between acute rheumatism and la grippe by one simple examination of the blood.

DR. J. T. WHEELER, Chatham, said that this blood test for trichinosis was of exceptional value because before it was known the only other test available was one which could not often be applied in private practice. Comparatively few patients would consent to the removal of a piece of muscle with the harpoon.

DR. J. C. HANNAN said that while deeply interested in this new means of diagnosis, he was disappointed at not hearing of some efficient method of treating these cases.

DR. FERGUSON said that a piece of muscle could be easily secured at the present time with the aid of local anesthesia by the Schleich method, using a small quantity of a 1 per cent. solution of cocain. The harpoon method did not give a sufficiently large specimen of muscle.

DR. GORDINIER remarked that of the 21 cases reported since 1897, the diagnosis had been made in all by examination of the blood.

DEPRESSED FRACTURE OF THE LEFT FRONTAL BONE, WITH SYMPTOMS SHOWING DISSOCIATION OF MOTOR SPEECH FROM WRITING CENTER.

DR. H. C. GORDINIER made this report. He said it had been supposed by physiologists that there was a writing center. His former case had been trephined by Dr. Ferguson, but her condition had been so bad that the operation had been hastily terminated. She had died a few days later, and the autopsy showed the lesion to be at the base of the second left frontal convolution, and nowhere else. It was absolutely separated by a sulcus from the motor area of the brain. A careful histologic study of the brain had proved that it involved no other area. The only localizing symptom was loss of the power to write. Recently he had seen at the Good Samaritan Hospital a boy who had fractured the left frontal bone. Trephining had been done, and shortly afterward a considerable hematoma had formed, as shown by complete motor aphasia and paralysis of the right side of the face and slight weakness of the arm on that side. He had tested the patient, a boy of 13 years, three days after operation, and had found that his ability to write was not impaired, though he could not speak. Later on the boy had been able to say single words. This case did not prove the position of the writing center, but went far to show that such a center exists separate from the motor speech center. A photograph was presented showing the position of the fracture.

DR. E. D. FERGUSON said that the boy had been kicked by a horse just above the supraorbital ridge, extensively fracturing the bone, a portion of which was driven into the brain. He had removed the loose fragments, but from the condition of the wound he did not feel justified in closing the dura mater. Drainage was employed, and quite naturally a very large hernia cerebri had developed. Nothing had been done for the latter, and in time it had entirely receded into the cranial cavity. The boy seemed to be in very good mental condition. Dr. Ferguson said that some years ago he had seen a woman presenting the symptoms of embolism, and more or less motor disturbance, with absolute word-blindness. She could converse as well as ever, though printed words were absolutely without significance to her.

DR. GEORGE F. COMSTOCK, Saratoga Springs, presented a very perfect specimen of extrauterine pregnancy which he had recently successfully removed.

UTERUS BICORNIS.

DR. E. D. FERGUSON reported a case on which he had operated the day before for what had been supposed to be a chronic appendicitis and a retroversion of the uterus. After having removed the appendix he had found what appeared to be a band of adhesion running from the mesocolon across Douglas' pouch to the base of the bladder. Careful search showed that he was dealing with a U-shaped uterus bicornis. The woman had borne two children, and both uteri were retroverted.

THE RADICAL CURE OF HYDROCELE.

DR. CRAWFORD E. FRITTS, of Hudson, presented this paper, which will be published in a future issue of THE JOURNAL.

DR. WILLIAM FINDER supplemented the paper with some remarks founded on his own experience. In one case, under cocain anesthesia, he had made an incision and stitched back the tunica vaginalis, but the case had relapsed. The operation had been repeated twice since then, with the same result. He had then tried the method known as Winckelmann's. The scrotum is incised and the tunica vaginalis is separated from all adhesions. It is then opened, and the fluid evacuated. The tunica vaginalis is turned inside out, and finally the testicle and the distorted tunic are returned to the scrotum and sewed up. The wound healed by primary union, and in a week's time the man had returned to his work. There had been no relapse or other discomforts. In this case he had used a 5 per cent. solution of cocain, yet there had been no symptoms of poisoning.

DR. FERGUSON said that the bichlorid method was a novel one to him. Personally, he had always used the injection of iodin, adjusting the quantity somewhat to the capacity of the sac. So far as he knew there had been no failures. The use of the iodin he believed had not been responsible for the occasional occurrence of gangrene. One of his earliest surgical experiences had been the tapping of a hydrocele in an old man. This had been followed by gangrene and sloughing, but the man had ultimately recovered, and his hydrocele had remained cured. He believed it was not the iodin that caused the mischief, but the infection introduced by the surgeon. The results described in the paper were so exceedingly good that he felt disposed to try it. He thought it might be an advantage to dissolve the bichlorid of mercury in normal salt solution instead of in pure water. Some weeks ago he had seen a case in which a seton had been used for the radical cure of a hydrocele. The scrotum was much swollen on the affected side, and with the aspirator he had withdrawn a moderate amount of serum. He had been inclined to think that the bulkiness of the scrotum was largely owing to the presence of an omental hernia. The man had subsequently submitted to operation, and the correctness of this diagnosis had been amply verified.

DR. GEORGE E. MCDONALD, Schenectady, said that he had operated a number of times by the old method, and, so far as he knew, with invariable success. In the last case he had left the fluid in and had simply injected a dram of iodin. The result in this, as in the other cases, had been a complete cure. He had treated a very large number of cases in this way.

IMPLANTATION OF URETER INTO THE BLADDER.

DR. E. D. FERGUSON spoke on the surgery of the ureters, reporting the following case: A woman had been delivered of her first child, and this had been followed by puerperal septicemia and pelvic abscess. The result had been destruction of the ureter and the formation of a uretero-vaginal fistula. After some weeks the case had come under his observation, and he had found the fistula to be located to the left side of the uterus at the line of the broad ligament fold. The ureteral sound could be passed up to the kidney and into the bladder, but it had been absolutely impossible to enter the ureteral opening on that side through the bladder. The fistula being so close to the bladder wall, he had felt justified in attempting to denude the tissues at that point. He had accordingly done a preliminary operation as for closing a vesicovaginal fistula, but the operation had failed. After an interval of two weeks he had passed a sound into the ureter, and dissected away about one inch of the ureter through the broad ligament. He had then formed a vesicovaginal fistula, and had approximated the vesical walls laterally so as to allow the ureter to lie freely in the bladder. The patient was put to bed and the implantation of the ureter was found to have been successful. It was now nearly three weeks since the operation, and the chances were that the remaining vesicovaginal fistula, being the result of operative interference, would close within a few weeks. This operation of implantation, the speaker said, was not very difficult in ordinary cases, and was an operation quite generally accepted at the present time. If the ureter could not be made to readily reach the bladder, a simple dissection would liberate the bladder anteriorly, and allow it to drop back a little, thus giving the operator an additional inch or two. The ureter could be handled quite freely with safety if no sharp instruments were used. The ureter could be conveniently seized and controlled by means of small alligator forceps, one blade of which protrudes beyond the other, and so easily enters the ureter. These forceps were invented by Dr. Kelly.

Dr. John T. Wheeler, of Chatham, was elected president, and Dr. J. E. Baynes, of Troy, secretary, for the ensuing year.

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

New York Medical Journal, July 28.

1. *The Pituitary Gland as a Factor in Acromegaly and Gigantism. (Concluded.) Woods Hutchinson.
2. Some Observations Upon Syphilitic Manifestations in the Uveal Tract—the Iris, Ciliary Body, and Choroid. Paul Turner Vaughan.
3. Empyemas of the Nasal Accessory Cavities, with a Report of Cases Where the Antrum of Highmore was Involved. Rudin A. Wright.
4. The Spectacle and Eyeglass Habit. Norburne B. Jenkins.
5. *Neurasthenia and Syphilis. James G. Kiernan.
6. Typhoid Fever in an Infant Eighteen Months Old. Recovery. A. Samuels.

Medical Record (N. Y.), July 28.

7. *Chorio-Epithelioma Malignum. B. S. Talmey.
8. Hypospadias Operated on Beck's Method. Ferd C. Valentine.
9. The Peritoneum-Anatomy, Physiology, and Pathology. Byron Robinson.
10. *Amenorrhea. L. H. Dunning.

Philadelphia Medical Journal, July 28.

11. *A New Method for the Clinical Determination of the Position of the Cardia. G. W. McCaskey.
12. *Cause of the Decussation of the Nerve-Fibers in the Medulla and Spinal Cord. D. T. Smith.
13. The Early Recognition of Ectopic Pregnancy. (To be concluded.) DeWitt G. Wilcox.
14. *A Method of the Graphic Study of Gastric Peristalsis. Clarence Quinan.
15. *Are Consanguineous Marriages Injurious to the Race? (Concluded.) Lawrence Irwell.

Boston Medical and Surgical Journal, July 28.

16. *Morbid Conditions Caused by Bacillus Capsulatus. Wm. H. Welch.
17. *True Function of the State Medical Examining Board. Allard Memminger.
18. Recent Progress in Neurology. (To be continued.) Philip C. Knapp.

Cincinnati Lancet-Clinic, July 28.

19. Dropsies. C. J. Funck.
20. Physical Evidences of Pulmonary Tuberculosis. Brooks F. Beebe.
21. Hemorrhage from Anus and Rectum, and Irritable Ulcer or Fissure. Geo. J. Monroe.

Medical News (N. Y.), July 28.

22. Aspiration in the Treatment of Acute Traumatic Empyema, with an Illustrative Case. Joseph D. Bryant.
23. *Headache from Eye-Strain: Its Diagnosis and Treatment. C. A. Wood.
24. *A Contribution to the Management of Face Presentations. Malcomb McLean.
25. *Acute Trional Intoxication. Warren Coleman.

St. Louis Medical Review, July 18.

26. Influenza Otitis and Treatment. C. R. Dufour.

Pediatrics (N. Y.), July 15.

27. Diagnosis and Treatment of Diphtheria. John B. White.
28. A New Brace for Cervical Spondylitis, with Remarks on Cervical Braces in General. Philip Hoffman.

Railway Surgeon (Chicago), July 24.

29 First Aid (Limited). H. L. Getz.

The Journal of Nervous and Mental Disease (N. Y.), July.

30 *Case of Wernicke's Conduction Aphasia with Autopsy. Howell T. Pershing.
31 Digest of Recent Work on Epilepsy. (Continued.) L. Pierce Clark.

The Woman's Medical Journal (Toledo, Ohio), July.

32 Timely Suggestions to the Recent Graduate. Ella B. Everitt.
33 Address to the Graduating Class of the Northwestern University Womans' Medical School. Julia C. Blackman.
34 Hysteria. G. Zada Higgins.

Journal of the Boston Society of Medical Sciences, June.

35 *Pathologic Changes Affecting the Islands of Langerhans of the Pancreas. Eugene L. Opie.
36 *On the Influence of Defibrination on the Secretion of the Kidney. Franz Pfaff and M. Vejux-Tyrode.
37 *New Method of Distinguishing Human from Other Mammalian Blood in Medicolegal Cases. Ernest L. Walker.
38 Some Laboratory Apparatus. Frederic P. Gorham.
39 *Methods of Staining Flagella. Wm. H. Robey, Jr.

Obstetrics N. Y.), July.

40 Chemico-Physiologic Researches with Reference to Tissue-Metamorphosis During Pregnancy and the Puerperium. Theodore Schrader.
41 *What Is the Significance of a Febrile Puerperium? Henry E. Tuley.

The Post-Graduate (N. Y.), July.

42 Addresses at Annual Reception of the Babies' Wards of the Post-Graduate Hospital. J. L. Parks and James C. Carter.
43 Affections of the Eye Associated with Lesions in the Kidney. W. O. Moore.
44 *Rectal Alimentation. Max Einhorn.
45 Notes from the Clinics. Dr. Caille and Dr. De Garmo.

The Laryngoscope (St. Louis), July.

46 Some Critical and Desultory Remarks on Recent Laryngologic and Rhinologic Literature. Jonathan Wright.
47 *Removal of Septal Spurs—A Note Upon the Use of the Carmalt-Jones Spokeshave. D. J. Gibb Wishart.
48 Laryngeal Abrasor. Gherardo Ferreri.
49 Symmetrical Osteoma of the Nose with Report of a Case. Otto J. Stein.
50 Report of a Case of Removal of a Myxofibroma from the Nasopharynx. Hal Foster.
51 Report of a Case of Fibroma Involving the Tympanic Cavity. E. W. Fleming.
52 A Tick in a Man's Ear for Two Years. B. F. Church.

Kansas City Medical Record, July.

53 Rupture of Uterus with Report of Case. N. A. G. Tesson.
54 Luetic Infection as a Probable Cause of Cerebral Abscess; The Study of a Case. S. Grover Burnett.

Chicago Medical Recorder, July.

55 *Progress in Obstetric Practice. J. C. Hoag.
56 *Internal Antisepsis; An Experimental Study. Albert H. Burr.
57 Surgical cases. Emil Ries.
58 Cow's Milk; Its Production and Marketing. H. B. Gurler.
59 Inspection of Herds by the Veterinarian. A. H. Baker.
60 City of Chicago Milk Inspection. Arthur R. Reynolds.

Iowa Medical Journal (Des Moines), July.

61 Multiple Osteoma. Wm. L. Allen.
62 Fractures and their Treatment. B. N. Torrey.
63 The Practical Results of Etiologic Investigation in Tuberculosis. Walter L. Bierring.

Interstate Medical Journal (St. Louis), July.

64 *The Nature of Acquired Immunity Against Zymotic Disease. C. A. Reid.
65 *Hysteria: Its Protean Manifestations and Treatment. John Punton.
66 *Transmission of Sound Considered as to Its Truthful Reproduction Through Amplification. Warren B. Outten.

Austin Flint Medical Journal (Mason City, Iowa), July 15.

67 Practical Suggestions Concerning Home Treatment of the Insane. G. H. Hill.
68 Deviated Septum as a Factor of Post-Nasal Disturbances and Treatment. J. E. McDonald.

Texas Medical News, July.

69 Treatment of Corneal Ulcers. R. H. Y. Mann.
70 The Germ Gallery. R. J. McClintock.

The Physician and Surgeon (Ann Arbor, Mich.), July.

71 *The Bubonic Plague. Frederick G. Novy.
72 *Some Further Observations on the Treatment of Epilepsy. David Inglis.
73 *Concerning the Administration of Drugs. Delos L. Parker.
74 The Physician and the Public. Walter J. Cree.
75 Prepared Selvage-Edged Iodoform Gauze. Emil Amberg.

St. Louis Courier of Medicine, July.

76 Ovarian Pregnancy. Catherine Van Tussenbroek.
77 *Pathology of Human Milk. John Zahorsky.
78 Prevention of Deafness, or a Plea for the Recognition of the Involvement of the Ear When Colds are Severe and Frequent, and for Prompt and Judicious Treatment. Louis J. Lautenbach.

The Medical Bulletin (Philadelphia), July.

79 Address to the Graduating Nurses of the Mercy Hospital. G. W. Pfromm.
80 Lupus Vulgaris and Lupus Erythematosus. John V. Shoemaker.
81 Carbonate-of-Lime or Marble Rheumatism. Ephraim Cutter.

Cleveland Journal of Medicine, July.

82 Report of Cases of Serious Injuries to the Eyeball, Occurring in the Service at Lakeside Hospital, Since Its Opening in January, 1898. B. L. Millikin.
83 *Spindle-Celled Sarcoma of the Superior Maxillary. C. A. Hamann.
84 *Adenocystoma of Kidneys, with Report of Case. Ralph J. Wenner.
85 Remarks on the Pathology of Cystic Tumors of the Liver and Kidneys. W. T. Howard, Jr.
86 *Synovitis of the Knee-Joint. William E. Wirt.

The Medical Times (Philadelphia), July.

87 Medicolegal Responsibility of the Aged and the Premature Senile Considered Mentally, Physically, and Morally, Particularly Concerning Their Sexual Failings, with Cases Illustrative. (To be continued.) J. J. Caldwell.

Pacific Medical Journal (San Francisco), July.

88 *Medicinal Vibration. Geo. Adam.
89 Pathologic Conditions in Typhoid, with Specimens. W. W. Cross.
90 The Doctor and Fees from Estates; Also Jeopardy from Damages. E. H. Smith.
91 Hydrochlorhydria and Hyperacidity of the Stomach. Alfred W. Perry.
92 *How Bacteriology Fails to Prove Plague in San Francisco. Ernest S. Pillsbury.
93 *The Alleged Existence of Plague in San Francisco. H. D'Arcy Power.

Canadian Journal of Medicine and Surgery (Toronto), August.

94 Gunshot Wound of Kidney; Nephrectomy—Thyroid Tumor and Fibrous Tumor of Lower Jaw. Thomas H. Manley.
95 Pre-Columbian Leprosy—A Critical Essay. (Continued.) Robert Lehmann-Nitsche.

University Medical Magazine (Philadelphia), July.

96 Some of the Developments and Demands of Modern Public Hygiene. A. C. Abbott.
97 Relation of Artificial Feeding to the Gastrointestinal Diseases of Infants. D. H. Bergey.
98 1. Coxa Vara. 2. Ankylosis of the Hip. De Forest Willard.
99 Experience an Essential of Satisfactory Radiography. Arthur W. Goodspeed.
100 *Osteoarthritis of the Spine and Hip-Joints. Rhizomelic Spondylosis. Charles H. Frazier.
101 *A Study of the Physiologic Action of Phenacetin. Horatio C. Wood, Jr., and Harold B. Wood.

St. Louis Medical and Surgical Journal, August.

102 Syphilis Complicated by Lupus Vulgaris. A. H. Ohmann-Dumesnil.
103 Phthisis Pulmonalis. Wm. Henry.
104 Treatment of Tonsillitis. Milton P. Creel.

The Stylus (St. Louis), July.

105 Preliminary Remarks to the Discussion of Tuberculosis. C. Denison.
106 Chronic Hyperplasia of the Uterus and Emmet's Operation. Walter B. Dorsett.
107 The Rational Treatment of Abortion in Country Practice. J. W. Cline.
108 Recent Improved Methods in Stomach Diagnosis. (Continued.) M. D. Schmalhorst.
109 Report of Case of Double Mastoiditis—Operation—Recovery. Geo. F. Keiper.
110 The Early Diagnosis of Melancholia, with Report of Cases. E. O. Crossman.

Indiana Medical Journal, July.

111 *President's Address Delivered Before the American Medical Association. W. W. Keen.
112 Treatment of Diseases of the Stomach. Alois B. Graham.
113 *Cure of Morphin and Alcohol Habit by Bromids. W. B. Fletcher.
114 The Physician. S. Weir Mitchell.

Medical Sentinel (Portland, Ore.), July.

115 *Some Remarks on Diagnosis and Treatment of Typhoid Fever. Elmer E. Heg.
116 Treatment of Burns. G. S. Armstrong.
117 Adenomyoma Uteri Diffusum Benignum. C. E. McCoy.

International Medical Magazine (N. Y.), July.

118 *Use of Opium in the Summer Diarrheas of Children. Floyd M. Crandall.
119 *A Consideration of Certain Bacteriologic Features of the Gastrointestinal Infections in Infants. Wayne Babcock.
120 Prophylaxis of the Summer Diarrheas of Infants. D. J. Milton Miller.
121 Diseases of the Skin Complicating the Infantile Gastrointestinal Disorders of Summer. Jay F. Schamberg.
122 Treatment of Rachitic Deformities. James K. Young.
123 Artificial Feeding of Infants. John Cooke Hirst.
124 A Few Practical Points in the Treatment of Summer Diarrhea in Children. Wm. S. Newcomet.

V. 3
190

125 Clinical Pathology and Symptomatology of Abscesses and Their Bearing on Treatment. Charles L. Leonard.
126 Diagnosis of Cancer of the Stomach. Boardman Reed.

Doctor's Magazine (Chicago), July 15.

127 *Do the Blind See Without Eyes? Frederick B. Stevenson.
128 A Report of Peritoneal Operations for Prolapsus Uteri in Schauta's Clinic. H. Schmit.
129 Method for the Resection of the Fallopian Tubes. Joseph Haiban.
130 Peripheral Tubal Sacs and Their Significance to the Etiology of Tubo-Ovarian Cysts. Edmund Waldstein.
131 A Doctor's Paradise. George F. Butler.

Atlanta Journal-Record of Medicine, July.

132 What to Send to the Microscopist and How to Prepare It. T. E. Oertel.
133 Diseases of the Stomach. Edgar J. Spratling.
134 Suggestions on Treatment of Puerperal Eclampsia and Post-Puerperal Kidney Lesions. R. R. Kime.
135 Some of the Later Sequelæ of Accidents Occurring During Parturition. Edward S. Stevens.
136 Ophthalmic Therapeutics for the General Practitioner. A. W. Calhoun.
137 Value of Ergot in Diseases of the Prostate. Eugene R. Corson.
138 Cholera Infantum. A. E. Chatfield.

AMERICAN.

1. **Acromegaly and Giantism.**—From the facts of morphology, embryology, and pathology, Hutchinson concludes that the pituitary glands, third ventricle, and pineal tracts are the vestiges of the primitive mouth and gullet, around which the entire mass of the cerebral nervous system is arranged. He thinks that this throws a light over the fact of the pituitary body being a guiding center over growth, and says that if he were to be asked to locate the growth center of the entire body on embryonic and morphologic grounds, he would unhesitatingly select this region. The conclusions at which he arrived are as follow: 1. That the pituitary body is still functional. 2. That disturbances of its metabolism are the principal factors in both acromegaly and giantism, the difference between the results being simply due to the stage of individual development at which the disturbance of the function begins. 3. That the nature of the overgrowth in both these diseases is primarily on the order of a pure functional hypertrophy; later, however, losing some of the definiteness of its impulse, and either producing immature tissue of a mixed type or resulting in simple hemorrhagic exudation, with either cyst formation or complete breaking down of the tissue mass. 4. That it seems probable, although upon this head the evidence is still uncertain, that some part is played by this body in "dwarfism," rickets, and the dwarf forms of cretinism. 5. That a reflex disturbance of its function may possibly underlie the dystrophy accompanying pharyngeal adenoids. 6. That it would appear to be a sort of "growth center," or proportion-regulator of the entire appendicular skeleton.

5. **Neurasthenia and Syphilis.**—Kiernan calls attention to syphilitic neurasthenia as aggravating the infection when it occurs and as embarrassing treatment. He recommends gold as an alterative in these cases, as it has some advantages over other medication.

7. **Chorio-Epithelioma Malignum.**—The case reported was one that was examined in the pathologic institute of the University of Zurich. Talmey believes that it corresponds to those already recorded. The plasmodial syncytial masses are always characterized by three points: Absence of cell outline; deeply stained nuclei; and vacuolation. The numerous fibrous masses are, he thinks, due to coagulation in a late stage of the process.

10. **Amenorrhea.**—Dunning reviews the various causes of amenorrhea: Atrophy of organs; chlorosis; retarded growth; atresia; imperfect development of uterus and ovaries, which he thinks is not uncommon; atresia of cervix; inflammatory lesions; etc. The treatment is discussed in detail, but nothing especially novel is offered.

11. **Location of the Cardia.**—The variety of statements of anatomists as to the exact position of the cardia in the stomach is pointed out by McCaskey, who has devised an instrument consisting of a graduated rubber tube attached to a rubber bulb, and with a very small bag of thin rubber at its other end for its determination. It is introduced into the stomach, and can be inflated as much as desired by pressing the rubber bulb. With this he is able to measure the exact distance from the mouth to the cardiac orifice, reading it on the graduated tube. The information thus obtained has been of very great value to him in a number of cases, as regards both diagnosis and treatment. In certain anomalous cases it is also possible to gain by this means some information regarding the caliber of the upper portion of the stomach.

12. **Decussation of the Nerve-Fibers.**—Smith explains the decussation of the nerve-fibers in the medulla by assuming that the fibers that pass down on the same side act as inhibitory and the others as contracting fibers, so that the fibers proceeding from each half of the brain pass to muscles on both sides of the body and act in concert in controlling the muscles on one side, and simultaneously relaxing them on the opposite side.

14. **Gastric Peristalsis.**—A new apparatus for determining the volume of the stomach and contracting powers of the muscle cells is described in detail by Quinan, with the method of using it, and a case is reported in which it has been employed.

15. **Consanguineous Marriages.**—Irwell thinks from his study that consanguineous marriages are in a great majority of cases undesirable, not because they originate disease, but because they intensify existing disorders or diatheses. It is impossible at the present time to insure that a family is without some taint, and as we are constantly counteracting the process of natural selection, such marriages become more and dangerous. They should therefore be discouraged. Consanguineous marriages should not be thought of in families in which idiocy, insanity, epilepsy, congenital deaf-mutism, hare-lip, cleft-palate, or the phthisical or lithemic diathesis exist, as they may be handed down from one generation to another. It is not, however, essential that identical symptoms or identical diseases be repeated, as transmutation of pathologic conditions is a matter of every-day observation. As there seems to be a proclivity to cancer, it should also be a bar, and he would urge that marriages of persons whose environments have been similar are injurious to the race, and that extreme exclusiveness in marriage is not commendable. If the diseased and degenerate insist on getting married, it is their duty to consider the next generation, and mitigate their innate unfitness by the selection of suitable consorts. He says, let the feeble marry the robust, the neurotic the level-headed, but he does not advise the robust or level-headed to marry the feeble.

16. **Bacillus Aerogenes Capsulatus.**—Welch first notices the history and points out the identity of his bacillus with that of Fraenkel. Its gas-producing properties and the points distinguishing it from the bacillus of malignant edema are noticed at length. The conditions in which it is found in the human subjects are mentioned, and he says that he knows of no organism that has offered such difficulty in determining whether its effects on the human body have been produced before or after death. It is found that it may exist in the living blood, but in the great majority of instances in which gas bubbles are found in the blood and internal organs, the evidence is in support of the view that it is a post-mortem phenomenon. The great importance, however, of this gas bacillus lies in its production of emphysematous gangrene, and this subject is discussed at considerable length. We can not follow all the author says here, and the reader is referred to the paper itself for this as well as for remarks in regard to uterine infections and infections of the gastrointestinal tract. The article is a very valuable and interesting one, and comparatively exhaustive on its subject.

17. **The Function of the State Medical Examining Board.**—Memminger thinks that the examining boards should accept junior certificates as evidence of proficiency and limit their examinations largely to practical questions of medicine. He thinks that this would not lower the scale of medical education, but would tend to elevate and increase practical teaching and produce a better class of medical men.

23. **Headache from Eye-Strain.**—In 1892 Casey Wood endeavored to point out that headache from eye-strain could be distinguished from other forms, and in this article he reviews the different types of headache especially connected with ocular

weakness or defects. He excludes, however, all forms of discomfort that find expression in the lids, eyeballs or contents of the orbit. The most important, and perhaps the most obscure, type is that due to incomplete or unsatisfactory muscular effort. The commonest example is supraorbital headache, frequently met with in ciliary strain. He traces the reflex arc back to the ocular motor nucleus and adjacent trigeminus nucleus, from which it is reflected to the terminations of the fifth nerve. He thinks that the proportion of this element is large, and that 40 per cent. is within limits, while 80 per cent. of all frontal headaches are connected with troubles, generally functional, of the eyes. As to the site of headache, we have in order of their frequency: 1, supraorbital; 2, deep orbital; 3, fronto-occipital; 4, temporal. All sorts of combinations and variations of these, however, will be observed. He describes the symptoms. Pain is apt to be dull rather than neuralgic. The eye itself may appear to be perfectly healthy, but astigmatism is probably the most frequent cause, and its determination is of importance in the diagnosis. Weakness of the external eye muscles may be to some extent the cause of ocular headache, how much he does not pretend to say. The headaches that simulate ocular headaches are those connected with supranasal disease, supraorbital malarial neuralgia, certain forms of nervous headaches in neurotic men and women, and a class of incurable headaches associated with organic disease in connection with eye-strain, such as those connected with iritis, glaucoma, etc. The treatment depends largely on the removal of the causes. The cause of nervous irritation must be attended to, whether it be insomnia or dyspepsia, which is one of the most common causes, ocular defects of any sort, and troubles which may be commonly associated in women. As far as local applications are concerned, the simplest is the use of very hot or cold fomentation; the latter is likely to be the most grateful. He says to take a medium sized towel, fold it 12 inches long by 4 wide, dip it into a basin of cold—40 F.—or hot—160-180 F.—water; bend over the basin, pressing the dripping towel gently against the closed eyes, forehead and temples; change frequently and continue the application for five or ten minutes, stopping when it causes pain or discomfort. Do this every hour or oftener while the headache lasts. In conjunction with this he thinks the mixture of equal parts of spirits of lavender, alcohol and spirits of camphor, may be rubbed over the forehead and temples.

24. **Face Presentations.**—McLean speaks of the unfortunate accidents which may be due to face presentations and the difficulty of meeting them, and criticizes the text-books that say they will as a rule, be self-corrected in the progress of labor. The method which he believes most effective is thus described: The patient being under full chloroform anesthesia, the hand is passed carefully into the vulva, with the outside hand seizing the body of the child. In the entire absence of uterine contraction, the chest is pushed as much away from the pelvic brim as possible from the point toward which the chin is pointing in the direction of the occiput, that is, pushing obliquely from behind forward. At the same time the fingers of the vaginal hand are pushed up alongside the head in one or other of the oblique diameters of the pelvis, so that they can reach the suboccipital portion of the head. The thumb at the moment steadies the brow, and with a slight lifting motion imparted to the whole head, it is caused to rotate on its axis as described, the chin passing upward above the sacro-ischiatic notch as the occiput is drawn down below the pubis. Flexion may be considerably hastened by pressing down the occiput by the outside hand as soon as the face is dislodged from its wrong position. He reports cases in which this method was satisfactorily employed.

25. **Trional Intoxication.**—Coleman believes that trional is one of the safest and most efficient hypnotics we possess and has yet to see a really dangerous symptom follow its administration. In one instance he saw a case of trional poisoning, in which a woman had taken 9 drams in seventy-two hours. The patient was in a somnolent condition for some days, and somewhat ataxic and thick in speech. A large dose of saline relieved the symptoms. His statement does not apply, of course, to those cases where it has been used a long period, but he thinks that the case shows that the medicine does not have a depressing effect nor necessarily produce fatal or even alarming results.

30. **Conduction Aphasia.**—Pershing reports a case which he thinks illustrates the conduction aphasia of Wernicke and where there was found a spot of softening immediately above the fissure of Sylvius, 6 cm. back of the junction of its vertical and horizontal branches, and the dorsal half of the right cerebellar hemisphere was destroyed by softening. In this case motor aphasia was excluded by the large number of words correctly uttered; visual aphasia was excluded by the absence of hemianopsia and the large number of words read aloud correctly or otherwise. The case was one of auditory aphasia, but differentiated from other forms by the rapid disappearance of word-deafness without any change in the paraphasia, paralexia, and agraphia. The lesion was small and well defined and, according to the latest views, was so situated as to interrupt communication between the first temporal and third frontal convolutions.

35. **Islands of Langerhans of the Pancreas.**—In 1869 Langerhans published a description of certain bodies consisting of groups of irregular polygonal cells in the pancreas, the nature of which he was unable to determine. Kühne and Lea have described, in injected specimens, glomerular structures composed of dilated and tortuous capillaries which correspond in site with these islands, so-called, of Langerhans. Various conjectures have been made as to their function, that they furnish an internal secretion, etc. Lewaschew claimed that he was able to increase their number at the expense of the acinar tissue by repeated over-stimulation of the gland with pilocarpin or by continued over-feeding. In the human pancreas the interacinar islets are more abundant in the splenic end than elsewhere—three and one-half times as abundant as in the body and head of the organ. In acute inflammatory conditions, the various elements of the gland are almost simultaneously affected, but in chronic inflammations, the islands of Langerhans do not always show alterations corresponding to those occurring in the secreting tissue around them. In some sclerotic inflammations of the organ they seem to be little affected, and Opie distinguishes two types of interstitial inflammation of the pancreas: one which he calls interlobular, which brings out strongly the lobules of the gland with wide bands of sclerotic tissue separating them, the other, the interacinar, characterized by the presence of new interstitial tissue within the lobule. In the first-named, the islands of Langerhans persist unaltered, which he thinks possibly due to the very great vascularity of the parts. They are not affected in obstructive disorder to the organ, and as the ducts do not penetrate through them, micro-organisms reaching the gland by this route would not enter them. In the second form, which he has observed in only three cases, these bodies were generally affected. There is a proliferation of the interstitial tissue forming coarse strands between the columns of the cells. The cells become diminished in size and their nuclei are small and stain deeply. In one peculiar case he found these glands almost entirely destroyed and rendered indistinguishable by hyalin degeneration which was principally associated with these parts. The connection of lesions of the pancreas with diabetes is always of interest, and the relation of these islands of Langerhans to the disorder is especially discussed. In all the four cases of pancreatic diabetes which he has met with, they were more or less affected. In one, which was of the interlobular type, the sclerosis was far advanced. In two out of three instances of the interacinar type, diabetes was present, and in the third case the lesion was accompanied by a condition of general pigmentation known as hemochromatosis. In fact the condition is the bronzed diabetes of French writers, so-called on account of the dark color of the skin. In this particular instance the patient was carried off by typhoid before the lesion of pancreatitis had advanced enough to produce glycosuria. In the fourth case that was mentioned, the condition was accompanied with hyalin change.

36. **Influence of Defibrination on the Kidney.**—Pfaff and Vejux-Tyrode have experimented to improve if possible the technique and method of artificial circulation in the isolated kidney. They found that with the use of defibrinated blood the secretion of the kidney was greatly reduced and contained

albumin, blood and kidney debris, that is to say, the kidney had lost its normal function. When, however, the normal blood from a second animal was used, the kidneys resumed their function, and the pathologic products disappeared, thus proving that defibrinated blood caused a stoppage of secretion in the kidney or produced in the secreted fluid the chemical and microscopical appearances of the urine of Bright's disease. Whether the results of these experiments will throw any light on the cause of Bright's disease can be determined only by further investigations which the authors promise to attempt.

37. **Human and Other Mammalian Blood.**—The distinction between human blood and that of other mammals has been based upon the size of the red corpuscles, and it has been found that they have not been altogether reliable. A new method proposed by Walker is based first on the morphologic and microchemic characters of the granules of the polymorphonuclear leucocytes, and second, on the ability to recognize these conditions in the dried blood. It is well known that leucocytes of the human blood contain granules that are brought out by special staining methods. Disregarding the "mast-cells" these granules are of two kinds, differing in size and staining properties. About 97 per cent. of the polymorphonuclear leucocytes contain numerous, minute, irregular granules which stain in neither basic nor acid stain, but only with certain combination stains like Ehrlich's "triacid," and are therefore called neutrophile. The remaining 3 per cent. contain large spherical uniform granules that stain only with the acid stains—acidophile. Of the other mammals, apes are said to show neutrophiles, but all other species contain only acidophiles and non-granuliferous leucocytes. He describes the condition in different animals and gives a table showing the staining reactions of the granules in a number of species.

39. **Methods of Staining Flagella.**—The method recommended by Robey is summarized by him as follows: 1. Clean cover-glasses thoroughly. 2. Prepare and dry cover-glasses on a level table. 3. Fix in a water bath at 60 C. for one-half hour. 4. Place in Pitfield mordant cold for twenty-four hours or three minutes hot; wash thoroughly in running water and dry. 5. Use the Pitfield stain the same as mordant. 6. Mount in balsam.

41.—See abstract in THE JOURNAL, XXXIV, p. 1487.

44. **Rectal Alimentation.**—This is indicated as follows: 1. In conditions in which the passage of fluids from the mouth to the stomach or to the small intestine is impeded or made impossible—strictures, benign or malignant of the esophagus or cardia of a high degree, spasmodic or paralytic conditions of the esophagus, pyloric or duodenal stenosis. 2. In ulcer of the stomach accompanied by considerable hemorrhage, or when the usual methods of treatment have failed. 3. Incessant vomiting, no matter to what cause it be due. 4. In all conditions in which absolute rest for the stomach seems imperative—intense pains soon after ingestion of food; persistent hyperchlorhydria of a high degree; intense chronic continuous gastro-succorrhea. Pronounced ischochymia. 5. In typhoid fever and other severe lesions of the small intestine necessitating a complete rest of this portion of the bowel. How long a period it should be administered depends on the condition requiring it. In ulcers, or irritating affections of the stomach it may be relied on alone for a period varying from one to two weeks, when natural methods may be cautiously resumed. Where there is an organic obstacle in the esophagus or pylorus, rectal feeding must be carried on as long as it exists, and in operating cases until a few days after the operation—in inoperable cases indefinitely. After operations on the esophagus, stomach and small intestine, rectal feeding must be continued for a period varying from four days to a week or ten days. It should be preceded by cleansing injections of salt and water to thoroughly evacuate the bowel and the food enema given one hour afterward through a fountain or Davidson syringe, slowly, without much force. The amount may be from five to ten ounces and three to five such may be given daily. The substances which Einhorn gives are: 1. The different kinds of peptones and propeptones, the different beef juices dissolved in water. 2. Milk and eggs, six to seven ounces of milk, with one to two raw eggs well beaten up in it, with perhaps the addition of pancreatin. 3. Meat pancreatin consisting of five ounces of well chopped meat with two ounces of fresh pancreatin, one ounce of butter or fat with about six ounces of water. These may be altered for variety and in conjunction, injections of water are made to increase the amount of fluid absorbed. Usually saline solutions in quantities varying from a pint to a quart may be given twice daily.

47.—This article has appeared elsewhere. See THE JOURNAL of August 4, title 131, 319.

55. **Progress in Obstetric Practice.**—The special points mentioned are instruction of patients as to the best methods of getting through the process of parturition, and preparation beforehand; the hygiene of pregnancy; the question of diet as affecting the development of the fetus, in which matter Hoag thinks that Eichholz' diet method is worthy of further investigation as affecting the size of the child's head and facilitating labor, and the advantages of posture.

56. **Internal Antisepsis.**—Furr reports the results of experiments upon himself as to the effect of aminoform on the blood and urine which seem to show that, under normal conditions, free formalin is not found in the blood two hours after ingestion of an ordinary dose of aminoform. Aminoform is capable of preventing decomposition in both normal and acidulated blood and in both normal and alkaline urine. It must, therefore, be antiseptic and theoretically a valuable drug in infected conditions. He asks whether it may be possible to exhibit formalin or its salts under conditions in which free formalin may be found in the blood in bactericidal strength with immunity, just as it is found in the renal secretions. If this question can be settled affirmatively, its value in infectious disease will be greatly enhanced.

64. **Immunity.**—The ordinary theories of immunity are rejected by Reid, who thinks that the natural processes of immunization are as follows: The individual is infected by the micro-organisms and is poisoned by their toxins. If death does not ensue, these cells produce enzymes which digest the toxins and injure the micro-organisms. As digestion proceeds, a gradual scale of toxins is produced, and up that graduated scale the cells of the individual react until they become indifferent to the strongest toxins and are able to destroy the micro-organisms. Pasteur, he says, imitated this process in his rabies treatment, and Jenner did it unconsciously in vaccination. Immunization by snake venom is produced by attenuating the poison in the stomach, and it may be possible on the same lines to cure a disease by swallowing and digesting its toxins. All toxins, however, are not digested in the stomach, or at least are not rendered innocuous—morphin is an example. If it were possible to attenuate morphin in some way by altering it, this product might prove of curative value in acute morphin poisoning.

65. **Hysteria.**—Punton believes hysteria to be the result of a defect in the anatomical conformation or the physiologic functional activity and power of the higher cerebral inhibitory centers, leading to disorder in the mechanism in one or more organs dependent upon their specific influence, that is, it is due to disorders of the higher inhibitory centers which are the last to develop. He dwells also on the importance of avoiding the evil influence of suggestion and the necessity of control and removal from home influences as treatment for such patients.

66. **Transmission of Sounds.**—Outten has experimented with various animal membranes superimposed one upon another, and finds that sound can be transmitted in a much more perfect state than by simple, more rigid membranes such as are used by the graphophone. He says that in this way the human voice can be reproduced in all its qualities. In the transmission of sound moisture seems to be necessary to produce the best qualities. He suggests further investigation with the superimposed layers of various membranes to augment sound and interpret its quality.

71. **Bubonic Plague.**—Novy's article is a complete history of the bubonic plague from the earliest times until now. He traces the present pandemic by various routes back to Yunnan in China, but there are undoubtedly other foci like those of Gurhwal and the recently discovered ones in Uganda and

Kisaba in Central Africa. It is quite likely another exists in Arabia. The present pandemic seems to have reached nearly all parts of the world, South America, North America, and Europe, as well as Asia and Africa.

72. **Epilepsy.**—The principle point in Inglis' paper is the use of coal-tar derivatives in epilepsy. He has tried the different ones, but has come down practically to the exclusive use of acetanilid. He employs it in cases where the bromids have been thoroughly tested and failed. It is not necessary, he says, to use large doses, 5 gr. or even 3 gr. three times a day will often prove sufficient. He gradually decreases the dose if the fits do not appear while keeping up its regular administration. He says that its use is justified on purely empirical grounds, and it seems that we are more certain of the positive action with these than with any other drugs. The surgical treatment of epilepsy is not hopeful, and he does not speak highly of it.

73. **Administration of Drugs.**—The phase of the question considered is that of the relation of the administration of drugs to the meals, and this is sometimes difficult to decide. The drug may unite with some of the food or digestive fluids, or both, and produce an entirely new compound which may have effects absolutely different from those that have been expected. Certain drugs may need to be given at a fixed time before or after meals in order to have the expected effect. When, on the other hand, they are given on an empty stomach, absorption may be too rapid and irritation may be produced. As an instance of this he mentions quinin, which may cause gastritis if given in large doses on an empty stomach. The administration of iodin in the form of compound solution or tincture, if given during digestion, may unite with the starch and produce a substance as valuable for medicinal purposes as a glass bead or copper cent. The effects of lack of precision in the administration of drugs in reference to meals are not as bad as they formerly were. The first reason was the substitution of the simple prescription for the old polypharmacy. The second change was the adoption of other methods of administration than by the stomach.

77. **Pathology of Human Milk.**—One of the most common variations from the normal is that the proteids are very high in percentage and have little tendency to decrease. While, from experience with cow's milk, this should not make so much difference, we have learned that the high proteids of mothers' milk are almost invariably associated with marked dyspeptic symptoms in the infant, commonly called colic. Zahorsky thinks the explanation of this fact is that the high percentage of proteids favors the growth of gas-producing bacteria, such as the bacillus lactis aerogenes, or, more probably, the gas is produced from proteids, and the treatment must be to secure proper metabolism in the mother by restriction of animal food, water drinking, exercise, sleep, etc. The relief of the infant also must be attended to. He uses dextrinized gruel as a diluent, giving half an ounce to two ounces of the mixture immediately before nursing. This combination of feeding is excellent in many conditions. The second clinical picture caused by faulty mothers' milk is anemia, which occurs usually after the eighth or tenth month, when the breast-milk has become very weak in proteids, but sometimes it occurs earlier. The cure of this disturbance is supplementary feeding, the administration of iron and phosphorus compounds and attention to the nutrition of the mother. In some cases milk contains pathologic bacteria from some disease or lesion of the nipple or breast and toxic symptoms and gastroenteric irritability are prominent. In another class, besides inanition disturbances, nervous symptoms are very prominent. The question of psychosis as regards the mother is mentioned in this connection, but the etiology in many cases is obscure. In any case, when we can, it is of importance to preserve mammary secretion even if it be only in small quantities, as the child must be taken from the breast only as a last resort.

83.—See abstract in THE JOURNAL, XXXIV, p. 1003.

84.—Ibid., p. 1418.

86.—Ibid.

88. **Medicinal Vibration.**—This article by Adam is theoretical and based on the assumption that all physiologic and pathologic phenomena are due to vibrations of matter in the intermolecular and interatomic ether, and this idea is applied to disease conditions and their treatment.

92-93. **Plague in San Francisco.**—Pillsbury's paper is in substance the same as that abstracted before in THE JOURNAL on p. 320. The article by Power is simply its supplement, and both cover the same ground and express similar views.

100. **Rhizomelic Spondylosis.**—This disorder, which has been given the above name by Marie, is described by Frazier, with two illustrated cases. The ankylosis of the spine which is its characteristic, and also of the large joints and extremities, was well marked. The etiology has troubled the observers. Curiously enough nearly all cases have been in males. In the two cases reported there was a history of traumatism; in neither was there any hereditary predisposition to this or any rheumatic disorder. The disease begins primarily in the ligaments and in the articular cartilages of the periphery. Any lesions of the nervous system are unquestionably not primary, but are due to pressure on the nervous roots or by exostosis. The prognosis is not serious as to life, but recovery is not to be looked for. Treatment can accomplish little, except possibly to relieve pain.

101. **Phenacetin.**—The conclusions in this paper are as follows: 1. The moderate dose of phenacetin is without any distinct action on any vital organ. 2. Large doses lessen reflexes by a direct action on the spinal cord. 3. Doses of .5 gm. per kilo of body-weight—equivalent to a little less than one ounce for a 150-pound man—kill by arrest of respiration. 4. Doses even up to .5 gm. per kilo had no distinct effect on the circulation.

111.—This address has appeared elsewhere. See THE JOURNAL, XXXIV, p. 1445.

113. **Bromids in the Alcohol Habit.**—Fletcher offers a treatment which he says is not original, but was suggested by Dr. G. M. Schweig, in New York, in 1876, in his article on the "Cure of the Morphin Habit." It consists in giving large quantities of bromid and a rather rapid tapering off of the narcotic habit. In cases where this habit is of long standing and large quantities are used, say from one to two quarts of whisky, or 10 to 20 grains of morphin, he gives about 1 ounce of bromid with a somewhat reduced dose of morphin or alcohol during the first twenty-four hours. The next day he gives one-half the amount of bromid and one-half the habit dose. It is rare, he says, that they do not get over the exhaustive stage in less than forty-eight hours, and he has never known a case to fail to rally. They require, however, several weeks' careful nursing before they are able to attend to business.

115. **Typhoid.**—Heg reports the general results of his experience with typhoid at Fort Meyer, Va., in the fall of 1898, when it was the base hospital of the Second Army Corps. He thinks that only about one-half of the cases received were correctly diagnosed in the early months of summer, but that the diagnosis of mild forms of typhoid is often exceedingly difficult. The Widal test, which was made in all cases coming to the hospital, was sometimes the only positive basis for the diagnosis. He is inclined to believe, however, that so many cases of mild typhoid are liable to be unrecognized that he agrees with Prof. Dock that all cases of persistent temperature especially in the summer or early fall should be considered as guilty of typhoid until proved innocent. On the other hand, there are many cases which seem almost certain to be typhoid, but which do not react to the Widal test, and which are due to autointoxication or ptomain poisoning. These patients are apt to recover rapidly and are the cases that make the reputation of the quack as cures or abortions of typhoid. The different methods of treatment were tested at Fort Myer, and Heg speaks very unfavorably of the Woodbridge method. He does not believe the Brand method to be of the value claimed for it, and thinks that it is of most use in full-blooded, plethoric individuals with excessive temperature, and then mainly in the early stages. Reduction of the temperature by drugs is in all cases harmful. Intestinal antisepsis is undoubtedly useful, and he found salol rather the best drug as being the best for the stomach and as satisfactory as any. Strychnin proved it-

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190

self to be the most valuable of all drugs when the heart was weak and delirium marked. It was recognized by all that the best results followed the old expectant plan, viz., as full a liquid diet as could be digested, as little medicine as possible, watching and meeting all symptoms, carefully supporting the heart and nervous system and reducing the excessive temperature in the least disturbing way. He was impressed by the following facts: 1. That while all cases are serious, with rare exceptions, they tend to recover, and will recover, barring accidents, under any conservative treatment. 2. While it is advisable to place all cases on a varied liquid diet, semi-solid or solid food does not do the harm that it is supposed to, excepting by disturbing digestion. 3. Relapses may follow all possible care and are mostly due to a new crop of bacteria rather than to solid food. He has not seen harm follow laxatives unless pushed too far, and he does not believe that temperature, unless excessive, over 104 F., is liable to do much harm. Hemorrhage may occur in any case, and he knows of no medicine that specially helps it. A number of cases of perforation were noted, but in no case was it advisable to operate. He afterward saw two patients who recovered after showing all the symptoms of perforation. The total death-rate up to the time he left Fort Myer was about 7 per cent., which he does not think was bad, considering the surroundings of the disease before being brought there.

118. **Opium in Infantile Diarrhea.**—While many practitioners believe that opium should have no part in the treatment of diarrhea, Crandall recommends its use in certain conditions. Its contraindications are, first: 1, in the first stages of diarrhea, before the intestinal canal has been freed from decomposing matter; 2, when the passages are frequent or of bad color; 3, when there is high temperature or cerebral symptoms are present; 4, when its use is followed by elevation of temperature or the passages become more offensive. It is indicated: 1, when the passages are frequent, with pain; 2, when the passages are excessively frequent, large, and watery; 3, in dysenteric diarrhea preceded by castor-oil or a saline; 4, in late stages, with small, frequent, nagging passages; 5, when the passages consist largely of undigested food, and the bowels act as soon as food is taken into the stomach. The method of administration is of importance. It should not be added to the ordinary diarrhea mixture, but should be given alone, which makes it easier to regulate the dose, and safer. The preparations are preferably paregoric and the deodorized tincture, morphin is very rarely required. The dose varies greatly, but should be as small as possible. The dose of paregoric for an infant three months old should be 2 minims; 1 year old, 8 minims; 5 years old, 30 minims. These doses are only approximate and vary somewhat according to individual needs.

119. **Gastrointestinal Infection in Infants.**—Babcock concludes that bacteria are not essential to digestive processes in the human subject, basing his opinion on experiments and clinical observation. The digestive action of bacteria is slight, and injurious compounds are frequently produced. The source of bacteria which cause gastrointestinal infection is chiefly cow's milk. He emphasizes the importance of avoiding contamination in milk, etc. Fortunately the organism has a power of resistance in a large proportion of cases, but this can not be depended on and undoubtedly many troubles are due to this cause. The methods of examining milk for this contamination are described and the details of sterilization given. Pasteurization is of value, but care should be taken that the milk is rapidly raised to the proper temperature, kept at that temperature for twenty minutes and then rapidly cooled. Some methods of so-called pasteurization are simple incubation of milk, and do not destroy some toxins that have been produced, and hence the child may be poisoned after the bacteria have been killed. This but emphasizes the need of securing the milk in as nearly a perfect condition as possible, and preventing contamination.

127.—See editorial in THE JOURNAL of Aug. 4.

FOREIGN.

British Medical Journal, July 21.

Our Numbers and Our Work at the Close of the Century. GEORGE EASTES.—The presidential address of Eastes before the Metropolitan Counties Branch of the British Medical Association gives some interesting figures as to the distribution of medical practitioners in Great Britain. It shows that they are steadily increasing in their ratio to the population, and that in London at the present time there is about one doctor to every 800 persons, while in 1881 there was one in every 1000, and that a like increase has taken place in the provinces. The number of female physicians is also increasing, but the numbers are not formidable at the present time, there being only about ninety-two practicing in London. The increase of dispensary practice is also another matter of importance to the profession, it being authoritatively given out that the out-patient visits in London alone last year numbered 1,335,000. The conclusion of the whole matter is that the medical profession is becoming more numerous, and its paying work less in Great Britain, as well as in this country. The remedies for this condition are, he thinks, already in effect. The fifth year added in 1892 in the student's curriculum has reduced the number of entries nearly three hundred a year since that date, and Eastes believes that the English colonies will afford a resource for many physicians who are crowded out from Great Britain.

The Lancet, July 21.

Malaria and Malarial Parasite. PATRICK MANSON.—The author describes the morbid anatomy of malaria, the disintegration of blood, anemia, etc. As regards the latter he remarks that the parasite is not present in the peripheral circulation in the same proportion as the central; hence the unduly small number of them described in the blood tested as compared with the mischief they are doing. The periodicity of malaria, he thinks, is due possibly to the life stages of the parasites and in part also to the diurnal rhythm of physiologic processes. So far as known, the lower animals are immune to malaria, and there is a great variation in individuals in this respect in the human species. The clinical forms are described, and he considers especially the pernicious types, the most common of which is the pernicious comatose. When the patient is suffering from an ordinary attack, he suddenly becomes comatose, and may die unless skillfully treated. Another type is the hyperpyretic, often confounded with sunstroke, and in tropical countries, convulsions may initiate the attack in children. All these different types are explained by the brain sections, which show the capillaries crowded with malarial parasites. The practitioner in tropical countries should always suspect any sudden unexplainable attack to be malaria. The diagnosis should not be positive, but there is cause for suspicion. Black-water fever is a disease not recognized until within the last thirty or forty years, and its symptoms are described. Its mortality sometimes amounts to as much as 50 per cent.; only occasionally is it as low as 10 or 15, and it is almost sure to recur if the patient remains in the endemic area. As in other malarial diseases, the symptoms may appear after the patient has left the infected region. Manson calls attention to the popular fallacy of thinking that every one must have been exposed to its infection, or that malaria is constantly present in all tropical countries. There are some regions in the tropics where the disease is absent. There are few diseases so easily diagnosed. There are three pathognomonic tests: 1. The periodicity, not the diurnal, but the tertian and quartan periodicity. Quotidian periodicity should be absolutely ignored in diagnosis. Then there is the therapeutic test by quinin, which is not sufficient, however, to be entirely relied on, as we have not time to wait for it, and third and last, is the microscopic test. The treatment resolves itself into one thing, the use of quinin, which is as nearly a specific as anything we have in medicine.

Modern Methods of Amputating at the Hip-Joint. THOMAS F. CHAVASSE.—The different methods of amputation of the hip-joint, as described by Chavasse, are: The method with the anterior and posterior skin flaps, and the muscles and vessels divided as high up and as close as possible to the pelvic bone by circular incision. The second method is what he calls the external racket method, the precise steps of which differ somewhat, according to the case. It appears to con-

sist in a circular skin incision, with a vertical incision joining it on the outer aspect of the limb from above the trochanter, and all the muscles and soft parts are cut through by circular incision reaching the bone. The femoral vessels are at once seized and ligatured, and steps taken for the disarticulation of the head of the femur. There is still another method which he mentions, that has been described by Estes, and is a modification of the German operation suggested by Professor Rose. The first step is the ligation of the common femoral vessels at Poupart's ligament, and division of the same between double ligatures. Short anterior and posterior skin flaps are then formed from without inward and the soft parts divided by gradual dissection close up to the pelvis, all known vessels being secured before they are divided, and the smaller ones being clipped immediately afterward. This is slower, but it can be carried out with one assistant, and the surgical apparatus is simple and slight. For obviating hemorrhage he thinks the Wyeth pins are the best means known, though in some cases he has used the compression of the abdominal aorta and digital compression by a skilled assistant. The questions of shock, age, pregnancy, etc., are considered in relation to amputation of the thigh. Chavasse believes that improving the technique makes the operation a less and less formidable one. The remarkable showing of Wyeth of a mortality of 12.3 per cent., is the best yet recorded.

Rupture of the Apparently Healthy Esophagus. E. J. MCWEENEY.—The author reports a case and analyzes previous records of similar accidents. From a study of the data, he concludes that the two main factors are softening of the coats, and sudden increase of pressure from within. The softening is due partly to the intra-vital digestion, and partly—at least in the case which he observed—to inflammatory infiltration. The intra-vital digestion is to be accounted for by circulatory disturbance, which in his case took the form of venous thrombosis, and by prolonged sojourn of peptic matters in the gullet from prolonged retching. The increased pressure from within is doubtless ascribable to the violent propulsion of the gastric contents into the lower part of the gullet, whilst its upper outlet is obstructed by the contracted state of the muscle—in other words, to want of co-ordination of the muscular action of the tube, probably due to exhaustion from prolonged over-activity. Whether a localized phlegmonous esophagitis—for that is the condition in the case now recorded—is a constant factor in these cases, it is, of course, impossible to assert in the absence of microscopical details of other cases. He thinks he is the first to establish the existence of this condition as a possible cause of rupture of the apparently healthy gullet.

The Varieties of Acute Pneumonia. HENRY HANDFORD.—The author reports a case of pneumonia with low temperature, though with typical physical signs, and reviews the etiologic varieties of the disease. One of the first examples of pneumonia is the influenza type, which he thinks accounts for many of the infectious cases that have been reported. Under ordinary circumstances, in good surroundings, pneumonia does not spread from one individual to another, but in these influenza cases there seems to be a direct contagion or infection. Another type which he mentions is what he calls "food pneumonia," due to eating poisonous food. Plague pneumonia, or the pneumonic type of plague, is noticed, and lastly, typhoid pneumonia, which he believes is only a special form of typhoidal poisoning.

Australasian Medical Gazette, June 20.

The Epileptic; His Treatment and Care. F. NORTON MANNING.—Epileptics are of interest from a social, medical and medicolegal aspect, and in this paper the author discusses their general character, number and treatment. The average epileptic, when the disease has become confirmed, is not, in Manning's opinion, an amiable character. He credits him with an ostentatious religiosity, with a very defective morality, and with general moral decadence. He thinks their number is underestimated, and he gives the figures for the various countries, but assumes that in New South Wales their number is perhaps not less than one to every 1000 of the population. Epileptics are often classed as insane and sane. This is hardly a definite distinction, as there is no marked dividing line between them. Even where there is no actual insanity, there is generally a certain degree of mental impairment. He calls attention to the automatism accompanying their attacks, which has a very important medicolegal bearing; we should be always on the watch in regard to this condition and its manifestations—the unexpected is particularly liable to happen. These cases are best treated in hospitals or asylums, where they may be controlled, properly dieted, and medically treated. For the large number, however, who are not actually insane, no due provision is made in Australia, and he pleads for special sanatoria for their care, and notices those of other countries. The moral treatment is important, and can be better managed in an asylum than among the patient's friends. There should be absolute prohibition of alcohol, only moderate use of tobacco, removal of possible sources of irritation, simple and well-regulated diet, and attention to the elimination. The medical treatment is largely bromids, but variations may be made which he points out. The treatment is almost always long and troublesome, and generally necessary for years, if not for life.

Hereditary Optic Atrophy. C. S. HAWKES.—The writer reports two cases in which optic atrophy seemed to follow in the female line, but affected only the males. Both are followed for four generations; in the first, the female had five children, all males but one, of two of whom the history is not known; the other two males became blind at the age of 30. The female child was not affected, married, and has nine children, five of whom are females and unaffected; three are unmarried, and one is married and has three male children, the oldest 19, none as yet affected. The two males became blind at the ages of 15 and 48, respectively; one, at present 28 years of age, is not blind. One female married and has two male and three female children; both the males and one female have become blind. The second family history is even more striking in some respects. A married B, who is said to have become blind. They had three children, two males, both blind, and one girl, who married and had five children, four males, all blind, and one female, not affected, who, in turn, had two children, both males, and both blind. The heredity in these cases is rather striking as showing the transmission of the defect through the female line, but involving males almost exclusively.

Bulletin de l'Academie de Medecine (Paris), July 3.

Circular of the Malaria Committee.—The committee of five, including Laveran, appointed by the Académie, has drawn up a comprehensive circular of instructions for the use of physicians, naturalists and travelers in malarial countries. It contains a detailed description of the parasite of malaria in all its phases, and of the mosquito, its host, with directions and suggestions for future research. The circular reiterates that neither the water, the soil, nor the air is directly the source of malarial contagion, and that the mosquito does not transmit the malarial germ to its young. Among the questions still pressing for solution are the age at which the system becomes accustomed to the malarial infection, and what type of fever determines it most absolutely. What becomes of the malarial germs inoculated in an immunized or "accustomed" individual? Do they propagate in the blood in this case or not? Is the immunity due to the fabrication of an antitoxin that neutralizes the toxic substances elaborated by the germ and poured into the circulation as the merozoites are liberated, or is the immunity due to a poison produced by the organism which kills the parasite? The study of similar parasites in animals is also of great importance. Adult mosquitoes can easily be raised from the larvæ for study, and can be caught by placing a test-tube over one. It flies up to the top of the tube, which is then corked, and the particulars written on a label pasted on the tube. A little water must be placed in the tube, and the insects can be kept alive by feeding them with a slice of banana or honey, or, if they refuse this, by allowing them access to a young bird still in the down, or a shaved portion of the skin of a small animal. The insects can be preserved in alcohol or pure glycerin, or mounted on pins. The committee will gratefully receive any information or answer questions on the subject. Address rue de l'Ecole de Médecine, 15, Paris.

Bulletin de la Soc. Med. des Hop. de Paris, July 5 and 12.

Permeability of the Pleura. J. CASTAIGNE.—Widal and Ravaut report tests of the permeability of the pleura by sub-

cutaneous injection of .3 sodium salicylate, followed by injection of the same amount into the pleura. The salicylate is eliminated more rapidly, and can be measured more accurately than methylene blue or potassium iodid, which have been used in previous tests. In one case of tuberculous pleurisy the pleural permeability was diminished, in one of pneumonic pleurisy the permeability was altered in respect to the length of time required, but not in the amount eliminated. In three cases of mechanical pleurisy of cardiac origin, the permeability was normal, but in another it was diminished. Castaigne communicates the results of further research in this line, which authorize the conclusions that when the permeability of the pleura remains normal, or nearly so, during the entire course of a pleurisy, its non-tuberculous character is established. Also that the stage of the pleurisy can be diagnosed by comparison of the serum and pleural fluid in respect to the freezing-point, and by study of the permeability of the pleura "from without," i. e., testing the passage of salicylate into the pleural effusion one hour after ingestion of 1 gram. The "augmenting period" of the pleurisy is characterized by pleural permeability from without inward, and by a difference between the freezing-point of the serum and of the pleural fluid. The moment when the inflammatory phenomena subside is characterized by the cessation of this kind of permeability, and by the appearance of isotony between the fluid of the effusion and the serum. The practical conclusion of his research is that a puncture should never be made during the "augmenting period," except as a last resort. At this stage the fluid forms rapidly again. When the fluid is isotonic, and the permeability from without is suppressed, if the pleura is absorbing well—showing "permeability from within outward" —puncture is useless, as the fluid will be spontaneously absorbed. On the other hand, if at this stage the pleura is not absorbing well, puncture is the only means to relieve the pleura of the accumulated fluid.

Pathologic Displacement of Mediastinum in Breathing. A. BÉCLÈRE.—Holzknecht recently called attention to the displacement of the mediastinum during respiration, which he had occasion to observe in a patient free from pleuritic effusion, and which he attributed to stenosis of the right bronchus of unknown origin. Béclère has encountered two similar cases, and carefully studied the conditions with the fluoroscope. He rejects Holzknecht's explanation, and asserts that displacement of the mediastinum during inspiration is almost invariably a sign of unilateral sclerosis of the lung, the mediastinum moving toward the sclerosed organ. It is a positive sign of sclerosis of the lung if the mediastinal displacement persists without change as long as the patient immobilizes his thorax in forced inspiration, and the variations in the transverse diameter of the image of the lung on the affected side during the two phases of respiration are scarcely perceptible. The diagnosis of sclerosis of the lung is confirmed by the lesser clearness and lesser extent of the pulmonary shadow, by the drawing in of the ribs, and the less open angle formed by their insertion in the spine, by the elevation of the diaphragm, and the shortness of its excursions. The displacement of the mediastinum is total or partial, according as the sclerosis involves the entire lung, or only one of its segments, and also according as the inspiration brings more or fewer ribs into play. This displacement might be due to sclerosis of a bronchus, but in that case it would not persist during the entire period of immobilization of the thorax in forced inspiration, but would vanish before the advent of the following expiration, while the shadow of the lung would enlarge in every direction.

Echo Medical (Lille), July 15.

Gynecology and Advertised Specifics. H. FOLET.—Several instances are related of the most serious results in various gynecologic affections, and especially cancers, from the use of remedies advertised in the lay press, some ridiculously useless, others directly fatal, by stimulating a latent neoplasm to malignant activity, and all baleful by the loss of precious time and opportunity. A typical case is that of a patient who had been operated on twice for the removal of a cancerous nodule in the mamma. When it appeared again, the patient, still in blooming health, refused another operation, and purchased an electric machine advertised as a cancer cure. In four months the nodule had become transformed into a vast, inoperable growth, with rapid cachexia and death. The electric treatment had been directly fatal by its stimulation of the neoplastic elements. The only remedy for such occurrences is to have suits for damages instituted promptly and without exception against the proprietors of the remedies. This would enlighten the public, and the firms would soon find the business unprofitable if the suits were properly managed, and if the damages awarded were presented to some benevolent institution. But in none of the instances related in this communication was Folet able to prevail upon the families to incur the notoriety of such a suit.

To Render Raw Meat Appetizing. P. CARLES.—Scrape a piece of beef with a sharp knife until nothing is left but the fiber. Press the scrapings through a fine sieve, and add to bouillon with a few spoonfuls of a purée of peas or beans, also strained. It is impossible to detect the taste of the raw meat in this combination. It should be served warm, and to heat it without cooking it is necessary to warm the meat slightly in a double boiler, and have the peas, the bouillon and the dishes hot.

[A correspondent writes to the *Progrès Médical* that the use of raw meat is a return to nature, that cooking is an arbitrary attempt to improve on nature, which cannot be justified. Cooking transforms a living into a dead thing, and it is these dead things, deprived of every vital principle, which we utilize to build up our tissues, contrary to all the examples furnished by nature. Raw-meat therapy is therefore a rational kind of organ therapy.—ED.]

Journal de Medecine de Paris, July 15.

Pumice Stone in Surgical Asepsis. MERIEL.—Instead of a brush, Meriel recommends a piece of pumice stone, boiled and kept in an antiseptic, as the most effective instrument with which to render the surgeon's hands aseptic, and "give him a new skin." Tests on dogs and rabbits, whose intestines and peritoneum were handled after the hands had been rubbed with pumice stone in soapy water, demonstrated the absence of pathogenic germs.

Infanticide with Umbilical Cord. DUFOUR.—This method of infanticide must be extremely rare, as only two are on record in France. Dufour relates a third case in which the cord was tied in a single knot around the throat, cutting deeply into the flesh.

Revue de Chirurgie (Paris), July 10.

Pneumotomy for Bullet Wound. M. CHRISTOVITCH.—A young man shot in the lung was immobilized for six days, when the threatening symptoms demanded surgical intervention. In an operation lasting only twenty minutes the fifth and sixth ribs were resected under a V-shaped flap; the hard point of the lung containing the bullet was seized with forceps, and the pulmonary pleura and the parenchyma of the lung were incised. A large amount of blood and pus escaped, and the bullet was removed, with three gangrenous fragments. Hemorrhage was arrested with gauze tampons; two drains were left in the pleura; the flap was sutured, and an aseptic dressing applied nearly encircling the thorax. Ether and 500 grams of artificial serum were injected, the latter repeated two days later. The patient was dismissed completely cured in two months, with not even a fistula left.

Interstitial Cells in Ectopic Testes. B. CUNEO.—Histologic study of two cases of ectopic testes, recently operated on, showed a remarkable development of interstitial cells in each organ, which seems to confirm the theory that these elements are of connective-tissue origin, and independent of spermatogenesis. From the pathologic point of view, it explains the frequency of malignant tumors in ectopic testes, and the predominance of sarcomata among these tumors. The practical conclusion is the necessity of abalation of every ectopic testis after puberty. The spermatogenic function is definitely abolished, and the testis in this case affords an excellent soil for the development of malignant tumors.

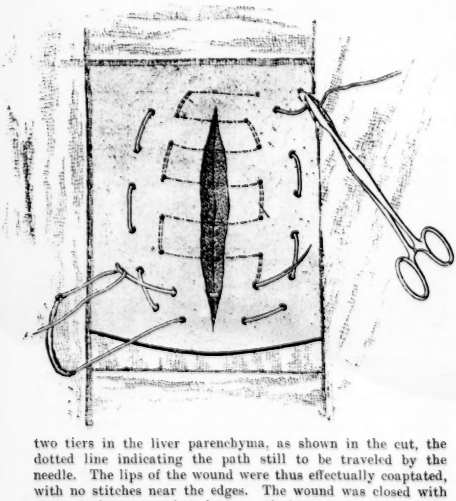
Revue Hebd. de Laryngologie (Bordeaux), June 30.

Best Anesthetic for Operations on Air-Passages. A. MALHERBE.—The advantages of the Rose position, for minor

operations on the upper air-passages, are obvious, and it is possible and safe if ethyl bromid is used for the anesthetic. The bromid has no action on the heart, and no after-effects, while it is prompt and reliable, as Malherbe has demonstrated in 3024 operations. He urgently recommends it, and asserts that with a few simple precautions, there is not the slightest danger. It must be administered all at once, not fractioned, and with the least possible air. A very small amount, "the size of a five-franc piece," is first poured on a compress folded in four thicknesses and held over the patient's nose and mouth as he reclines on his back on the table. After twelve to fifteen seconds the left hand is slipped underneath, and 10 to 15 grams more of the bromid are poured on the compress, which is then held close over the mouth and nostrils with the right hand, the left sustaining the jaw. If the patient shows signs of suffocation, all that is necessary is to raise the compress, and allow a single deep inspiration of fresh air. Anesthesia is complete in forty to sixty seconds. It is indicated by a snoring respiration, a sensation of cold evaporation on the fingers holding the compress, as the expired air passes between them, and relaxation of the jaws and muscles. The patient can then be drawn to the edge of the table, and the head allowed to hang over, in the Rose position, supported by an assistant. If the operation is long, a small amount of bromid can be administered after five minutes, for a second and even a third time, thus obtaining as much as fifteen minutes for the intervention, and even ten minutes longer, as although the patient is waking, the analgesia persists for several minutes. It is not necessary to raise the patient's head for the secondary administration. There is no congestion after the anesthesia is complete.

Presse Medicale (Paris), July 11.

Method of Suturing Wounds in the Liver. F. P. CANAC-MARQUIS.—The author of the method of suturing here described is a resident of St. Paul, Minn. It was first practiced on a young woodsman who had received an accidental wound in the side from a violent blow with an axe, cutting an incision in the liver 8 cm. long by 5 deep. With a long, round, curved needle, two double rows of U sutures were taken in



two tiers in the liver parenchyma, as shown in the cut, the dotted line indicating the path still to be traveled by the needle. The lips of the wound were thus effectually coaptated, with no stitches near the edges. The wound was closed with drainage for twenty-four hours, and the patient made an uninterrupted recovery. The liver was sutured in the same way in another case, after ablation of a hydatid cyst on the upper surface, with equally favorable results. The catgut used was coarse, soft and flexible, and pulled through each time in the direction of the needle, with slow and gentle traction, never to right nor to left, for fear of injuring the parenchyma. The spaces left between the stitches were never less than 1½, nor more than 2 cm. long, and the lower tier was carefully taken below the deepest point of the wound, to avoid any dead space.

Constriction of Esophagus. J. POTARCA.—Cicatricial constriction consecutive to ingestion of a caustic salt, in the observation reported from Bucharest, required catheterization. This caused perforation of the wall, purulent infiltration of the cellular tissues, ulceration of the bronchi, and rapidly fatal infectious pneumonia. The constriction was near the fourth dorsal vertebra, and the cadaver showed that the intramediastinal thoracotomy from the right side, advocated by the writer for such cases, would easily have reached and evacuated the pus, and afforded the only chance of safety. Quénu has advocated the left side for such operations, but the conditions showed that this route would have been far more indirect, tedious and dangerous. The operation in the observation related was postponed until the arrival of the surgeon-in-chief, when it was too late. This experience indicates that prompt, radical intervention is the only chance in such cases.

Semaine Medicale (Paris), July 11.

New Method of Treating Tubercular Osteoarthritis. C. TRUNECEK.—The aim of this treatment is to cure tubercular or other fistulæ by the application of a caustic that destroys the pyogenic membrane, induces an intense inflammatory reaction around the tubercular foci, and yet is not toxic for the tissues. The fluid used is a 20 to 25 per cent. solution of salts, with which the tissues are normally in contact in the serum, observing the following proportions: Sodium sulphate, 1.46 gram; sodium chlorid, 16.4; sodium phosphate, .5; sodium carbonate, .7; potassium phosphate, .94; water, 80. This fluid is injected into the fistula through a tube, at first gently, and then with great force, the opening plugged around the tube, and the sound skin protected with vaselin. The injection is continued until the fluid emerges clear and slightly tinged with blood. The cavities are then injected with 10 per cent. iodoformed ether; compresses are applied to reduce the inflammation, and the patient is kept in bed. There is smarting and pain on pressure, but these soon pass away, and this simple method of treatment cures without scars or hemorrhage. It is almost invariably effective, if the organism is capable of any inflammatory reaction at all. The serous discharge that follows usually brings out any sequestra. In one case of multiple tubercular caries in the humerus of an adult, a sequestrum .5 by 3 cm. in size was eliminated the third day after the caustic injection, and the cure was complete in three months.

Dermatologisches Centralblatt (Berlin), July.

Inunctions vs. Inhalation of Mercury. M. SAENGER.—The idea has gained currency of late that the beneficial effects of mercurial inunctions are due to inhalation of particles. Saenger has been thoroughly testing his inhaler, invented for treatment of pulmonary affections with volatile substances, and finds that, with it, the mercury can be inhaled fully as effectively as when it is rubbed on the body. But he discovered that the therapeutic effects were not nearly so marked as with the same amount of mercury absorbed in inunctions, and consequently announces that the theory which assumes that inhalation is the essential factor in mercurial treatment is erroneous.

Muenchener Medicinische Wochenschrift, July 10.

"Milk Immune-Serum." V. DUNGERN.—In some recent experimental research at the new Frankfort Institute, guinea-pigs and rabbits were treated with cows' milk in the attempt to determine whether the products of epithelial secretion will produce a specific immune-serum, such as has been obtained for ciliated epithelium, spermatozoa, etc. The experiments were successful, resulting in the production of a hemolytic serum, which differs in its action from blood immune-serum, but so far no difference has yet been discovered between it and ciliated-epithelium serum. The milk serum is therefore an epithelium serum, characterized by its special hemolytic immune-body. This indicates that the same specific group is present in the milk as in the epithelium producing it, which coincides with the histologic observation that the protoplasm

of the gland cells is directly applied to the production of milk. The specific epithelium serum thus obtained by preliminary treatment with milk suggests that human milk might be successfully utilized for purposes of immunization against carcinoma, especially of the mamma. All of the experiments with dogs and rabbits treated with human milk, however, have thus far failed to produce any hemolytic serum for human blood corresponding to that obtained with cows' milk.

Poisoning with Turpentin. H. SCHULZ.—Ten to twenty drops of pure oil of turpentin can be taken into the stomach in health without serious disturbances, but a small amount inhaled is liable to cause symptoms of poisoning. The minute particles which are inhaled are readily absorbed, and it is possible to induce poisoning with even a small amount taken into the stomach if finely emulsified, as was demonstrated by tests on a number of medical students. The central nervous system was always more or less affected, the spinal predominating over the cerebral symptoms, with muscular fatigue to exhaustion, cephalalgia, lowered pulse, digestive disturbances, constipation, and extensive acne in two cases, but no urinary nor respiratory symptoms.

Etiology of Fibrinous Bronchitis. OTT.—A simple catarrh in a man employed in grinding knives and scissors was aggravated by the metal dust, resulting in a fibrinous bronchitis, of an unusually protracted course. The association of staphylococci and pneumococci was probably responsible for the lingering course of the disease.

Tincture of Soap for Surgical Asepsis.—PAUL AND SARWEY.—Spiritus saponatus officinalis has been urgently recommended by Mikulicz and others as the simplest, least expensive, and most effective means of disinfecting hands and the field of operation. Their assertions are now authoritatively confirmed in respect to the effectiveness of the disinfection that can be obtained with it, by the tests instituted by the writers of this communication at Tübingen, scraping the hands afterward with a piece of hard wood, etc.

Passage of a Compress Into the Intestines. WUNDERLICH.—Another case is reported of a compress, 21 by 100 cm., evacuated by the anus three and one-half months after an ovariotomy. It had not caused any symptoms until a sudden diarrhea occurred, in the course of which it was discharged. In another case a compress was found in the peritoneal cavity, at the autopsy, thirty-six hours after a cholecystectomy, but it had probably nothing to do with the fatal termination. Wunderlich observes, "I always used to have my compresses and instruments counted, but since this occurred, I count them myself."

Wiener Klinische Rundschau, July 1, 8 and 15.

Latent Tubeculosis of Tonsils. L. RÉTHI.—In a hundred operations for ablation of hypertrophied tonsils on persons apparently entirely free from indications of tuberculosis, the writer discovered tubercle bacilli in the extirpated tonsils in six cases. The bacilli were found in the epithelium in one instance, and it was eroded, thickened, or knobby in most of the cases, affording favorable opportunities for bacillary invasion. He advocates removal of hypertrophied tonsils under all circumstances, without regard to clinical symptoms.

Splanchnoptosis. F. KRAUS.—Study of the pathogenesis of ptosis of the visceral organs shows that there are two varieties; one due to alterations in the general conditions of the intra-abdominal equilibrium, and the other to certain constitutional defects, of which the splanchnoptosis is merely the most prominent symptom.

July 8.

Pathogenetic Importance of Tonsils. E. ARON.—Two more cases are related which conclusively demonstrate the important part played by the tonsils as the primary lodging place of pathogenic germs. One was a streptococcus-pneumococcus infection, and the other abdominal typhoid, each following a typical follicular tonsillitis after the characteristic incubation period. The absence of glandular involvement in one instance suggests that the germs must have passed directly from the tonsils into the circulation. Aron is inclined to consider tonsillitis in its various forms, a disease *sui generis*, and in any event, the necessity of prophylactic measures is emphasized by his experience.

The Becquerel Rays. G. HOLZKNECHT.—The greater importance of the Roentgen rays has overshadowed the later discovery by Becquerel of the invisible rays emitted by uranium, and especially by pitchblende, a combination of the metal found in Bohemia. They differ from the Roentgen rays in being spontaneous and inherent, and by their far greater diffusibility, but most prominently by their property of rendering the air a good conductor for electricity. It is impossible to load a spectroscope or Leyden jar in the vicinity of the substance emitting the rays, and all attempts to break up the rays with prisms, to polarize them, to measure the light waves, have proved ineffectual. A bit of the black substance in the bottom of a test-tube will cause the fluorescent screen and other substances responsive to the Roentgen rays to shine faintly at a distance of 20 cm. A sensitized plate is blackened as by daylight, even in light-proof wrappings and when covered with other bodies—gold-leaf, aluminum, zinc, etc.—in certain thicknesses. According to its chemical reactions pitchblende is a combination of bismuth and barium, which are called "radioactive" in this combination, and certain scientists consider them two new elements, "polonium" and "radium." As days or even weeks are required to take a Becquerel radiograph, the process has as yet no practical interest.

July 15.

Serum Therapy in Septic Processes. HAEBERLIN.—Four cases of general pyemia, mostly puerperal, are described, all treated with antistreptococcus serum. There was slight transient improvement in one case, no effect in the second, but the morbid process in the third and fourth was arrested as if by magic. The difference in the streptococci evidently prevents any therapeutic action in certain cases, and a streptococcus serum, to be effective in all cases, must be derived from an animal immunized by means of all different varieties. The injections are harmless, and should always be tried as a last resort at least. Further tests of it as a prophylactic measure would be welcome.

Wiener Klinische Wochenschrift, July 5 and 12.

Colic Pains. R. LUCKE.—Colic is a pain from acute tension. This tension may be due to congestive processes, obstruction of the outlet, or other causes, and the effect is supplemented by the contraction of the circular muscles in the organs. The acute tension of a hollow organ in consequence of abnormally increased internal pressure does not cause colic pains if the tension has been gradually induced and the tissues yield. In case of organs with exceptionally developed circular muscles, remedies are indicated to relieve the cramp, but when the rapid increase of pressure is chiefly due to inflammatory processes, we endeavor to reduce the hyperemia. In this latter case we must not forget that we are neutralizing one of the internal processes for the expulsion of a foreign body. In cases in which the natural forces are manifestly inadequate to overcome the obstacles to its expulsion, our treatment of the colic is rational, but not in cases in which the natural processes have a prospect of success. Whether therapeutics should not have other aims than merely the relief of the pains in these cases, is a question for discussion.

Combination of Basedow's Disease and Myxedema. J. A. HIRSCHL.—A case was observed in Krafft-Ebing's clinic in which the patient, a woman of 33, previously healthy, had typhoid fever seven months before, and then immediately after a fright due to a severe fall, developed palpitations and the characteristic pulse. These symptoms subsided in two months, but the skin of the face and lower limbs became myxedematous, the uterus atrophied, and the memory became defective—the symptoms indicating a transition from Basedow's disease into myxedema. The struma was at first vascular, but later hard and fibrous. The skin was never moist with perspiration. This case suggests the possibility that the excessive and abnormal secretion of the thyroid gland may induce a series of symptoms caused by changes produced at certain points in the nervous system. These changes—and with them the corresponding Basedow symptoms—may persist even after the hypersecretion of the thyroid has ceased. The process may be

cured, but the Basedow symptoms still persist. The changes in the nervous system might even continue past the period in which the hypertrophy of the thyroid is neutralized by atrophy. This conception would explain the occurrence of Basedow and myxedema symptoms in the same individual.

July 13.

Recurring Tetanus Gravidarum. C. HÖDLMOSER.—None of the stigmata of hysteria appeared in the case described, but the patient, a woman of 33, had experienced cramps and other symptoms of tetanus in each of her seven pregnancies about the time the first fetal movements were felt. They recurred about every two weeks from this until the end of the pregnancy. During the intervals she was completely free from any of these symptoms.

Zeitschrift f. Orthop. Chirurgie (Stuttgart), viii, 1.

Contraction and Ankylosis in the Knee-Joint. A. BLENCKE.—In all cases of ankylosis with tuberculosis, the writer's experience and study of the literature indicate that resection is the best method of treatment and also for ankylosis with considerable backward dislocation of the tibia, and genu valgum. Light cases of subluxation of the tibia can be treated by an arc-shaped resection. Helferich's method is preferable for angular ankylosis, as it does not shorten the limb nor interfere with its later growth, while it allows the gradual straightening of the member, and by the shape of the bony surfaces, guarantees their solidity. On the other hand, the best method of treating contractions in the knee-joint is by portable apparatus, severing the tense soft parts in certain cases. This does not require the patient to stay in bed, allows the contraction to be gradually and painlessly reduced, and avoids the dangers of *brisement forcé*. If the contraction is complicated with curvature of the femur or tiba, osteotomy is necessary for the latter.

Spondylitis Typhosa. M. HERZ.—The wife of a physician in Dresden was recovering from an attack of typhoid fever, which had been complicated by suppurative choroiditis, when lightning pains and cramps appeared in the right limb with symptoms of paresis in the arm of the same side. By the fifth week the sacral region became the seat of intense pain, which radiated into the limbs, until the least movement of the spine and lower extremities was exquisitely painful. There was no fever, but the knee-jerk was excessive, and the dorsal muscles contracted. The patient was placed in a plaster bed with immediate relief of the pain and gradual recovery. Although no bacteriologic test of the spondylitis was possible, yet the typhoid origin was unmistakable. The case is the fourth on record.

Orthopedic Practice. A. SCHANZ.—In reviewing his experience, Schanz mentions that he has found a thick cotton bandage better than a plaster cast for the treatment of torticollis, care being taken to avoid too great pressure on the brachial plexus by compression of the clavicle. A correct attitude of the head is attained by having the child carry a light sand-bag on the head. In the treatment of coxa vara he has always acted on the principle that the first and chief indication is the arrest of the deforming process. Anatomic correction is frequently found unnecessary when this has been accomplished. In one case diagnosed as congenital dislocation of the hip-joint, with Trendelenburg's sign, extreme painfulness and marked projection of the head of the femur on one side, the latter proved to be a myxoma on the neck of the femur, simulating the head in size and position, complicating double coxa vara. Another patient, a lad from a "bleeding family," and himself a "bleeder," in an advanced stage of coxitis, was completely cured in a year, which suggests that the lesion was hemorrhagic rather than tuberculous in origin. General treatment alone is considered sufficient for children under 6, with genu valgum or varum, and operative correction is attempted only in the severest cases. Supracondylar osteotomy is indicated for genu valgum, and below the epiphysis of the tibia and in the middle of the diaphysis of the femur in case of genu varum, always oblique and sometimes in as many as three places.

Gazzetta degli Ospedale (Milan), July 8.

Injections of Iodin in Surgical Tuberculosis. G. MORTARI.—The unmistakable benefits derived from injections of iodin in fistulous affections are probably due to the neutralization of the toxins of the tubercle bacillus, rather than to any action on the bacillus itself, supplemented by the stimulation of the natural defensive processes. This communication describes a dozen typical cases of tuberculous fistulæ cured by injections of Durante's combination of iodin, .3 gm., and potassium iodid, 3 gm., in glycerin and water, āā 50 gm.

Hemorrhages in Influenza. V. GROSSULE.—The latest epidemic of influenza in Italy was marked in the writer's experience by a predominance of hemorrhages—epistaxis, bronchorrhagia, metrorrhagia and menorrhagia—in persons with no previous history of the kind, which frequently required extreme measures to arrest them. Another feature of the epidemic was the number of cases of malignant bronchopneumonia and the fact that none of the 400 children who had passed through an epidemic of measles the year before were attacked by the influenza.

Anaerobiosis. C. FERMI.—None of the culture-media hitherto used for anaerobic cultures have been absolutely free from oxygen, and Fermi has been testing some from which the last trace of oxygen was expelled by prolonged boiling under a layer of paraffin, or by other means. He announces that no cultures of the so-called anaerobes developed when the oxygen was rigorously expelled from the medium, and that consequently the complete absence of oxygen is probably incompatible with micro-organic life.

Queries and Minor Notes.

MEDICAL LAWS.

To the Editor.—Please inform me as to the law governing the practice of medicine in California, Oregon, Washington, Louisiana, and Iowa, and state the names and addresses of the respective State Board Secretaries.

ANSWER—California: A diploma, duly certified and sworn to from a recognized medical college. Secretary of the State Board of Examiners—regular—C. C. Wadsworth, M. D., 1104 Van Ness Ave., San Francisco.

Oregon: Examination by the State Board of Medical Examiners. Secretary, Byron E. Miller, M.D, Portland.

Washington: Same as Oregon. The secretary is either Dr. W. G. Tucker, Port Townsend, or J H. Hoxsey, Spangle.

Louisiana: Diploma from a medical college recognized by board, and examination. Secretary, Dr. F. A. Larue, 624 Gravier St., New Orleans.

Iowa: Diploma from recognized medical college and examination. Secretary of Board, Dr. J. F. Kennedy, Des Moines.

LEWISTON, ILL., July 25, 1900.

To the Editor.—Will you kindly inform me through the columns of THE JOURNAL what is the law regulating the practice of medicine in the State of Arkansas? J. R. H.

ANSWER—In Arkansas there are county boards of medical examiners. Write to the county clerk of any county for details.

GOAT LYMPH AGAIN.

A few days ago one of the Chicago dailies printed a two-column article headed in big, bold, black letters: "Big Meet of Doctors, Great Conference of Physicians to be held in Chicago. Assemble in August. Three Days to be Given to the Study of Goat's Lymph Remedy. Doctors from All Parts of the Civilized World Will Make Reports on the Treatment." Then we are informed that one thousand physicians from the United States and Europe are to come to Chicago "on a peculiar mission," which is to exploit the goat-lymph business. We are told that the lymph "has been adopted by the medical director of the British Army," whoever he may be, "for use among the Queen's troops in India, and in this another great triumph has been scored by the Chicago scientists who have worked so hard to bring the lymph to public attention. When the British army medical authorities became satisfied that there was real merit in the lymph they expressed the fear that, being an animal derivative, it would not stand exporting to so hot a climate as that of India." Sic! "'You have undoubtedly got a wonderful remedial agent,' one eminent physician wrote, 'but I fear it will be useless to ship it to India. It will be better for you to come over here and show us how to prepare it.' But Dr. Hawley didn't go to India. He was too busy making lymph experiments for the benefit of American doctors. He just went to work and devised a means of preparing the lymph so it was climate proof and would retain its remedial qualities under all possible conditions of heat or cold, and it is now being used with miraculous effect in Hindostan."

The names of the "celebrated American physicians who will be in attendance" are also printed, and that our readers may not be kept in ignorance of those who are "celebrated" among American physicians, we print the names also:

Dr. Scott Stone, Cleveland, Ohio; Dr. H. W. Hartwell, St. Louis, Mo.; Dr. Ed. T. Smith, Buffalo, N. Y.; Dr. F. S. Holladay, Los Angeles, Cal.; Dr. C. S. Crandall, Utica, N. Y.; Dr. William H. Heisen, Denver, Col.; Dr. A. R. Rainear, Philadelphia, Pa.; Dr. O. K. Thompson, Detroit, Mich.; Dr. William W. Townsend, Rutland, Vt.; Dr. A. L. Flanders, Boston, Mass.; Dr. R. W. Steger, New York City; Dr. F. C. Holden, Brooklyn, N. Y.; Dr. A. W. Parsons, City of Mexico.

These are no doubt celebrated, for have they not paid $100 for the privilege of using the lymph and $25.50 for each ounce and a half of the stuff they use? Or if they are very celebrated, they have probably accepted this offer which we clip from one of the circular letters sent out by the exploiters: "We have a special lymph, the Roberts-Hawley lymph, which is very much stronger, that costs you $30.50 for each ounce and a half."

The Public Service.

Army Changes.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., July 25 to 31, 1900, inclusive:

James A. Alexander, acting assistant-surgeon, from the Division of Cuba to San Francisco, Cal., for duty with troops going on foreign service.

David Baker, lieutenant and assistant-surgeon U. S. A., from the Department of Western Cuba, to San Francisco, Cal., to accompany troops on foreign service.

William H. Corbusier, major and surgeon, U. S. A., leave of absence granted, on the expiration of which to report for duty at Fort Columbus, N. Y.

Joseph J. Curry, acting assistant-surgeon, leave of absence granted.

Oscar F. Davis, acting assistant-surgeon, from Bloomington, Ind., to San Francisco, Cal., to accompany troops on foreign service.

Guy S. Dean, acting assistant-surgeon, from Kenton, Ohio, to San Francisco, Cal., for duty with troops en route to the Philippine Islands.

Albert W. Dumm, acting assistant-surgeon, from Columbus, Ohio, to the Department of California.

Julius A. Escobar, acting assistant-surgeon, from the Division of Cuba to San Francisco, Cal., for duty with troops going on foreign service.

John M. Feeney, acting assistant-surgeon, from Huntsville, Ala., to San Francisco, Cal., to accompany troops on foreign service.

Robert J. Gibson, major and surgeon, U. S. A., to report to the Surgeon-General for instructions.

Frank C. Griffis, acting assistant-surgeon, from Mt. Gilead, Ohio, to San Francisco, Cal., for duty with troops en route to the Philippine Islands.

Robert B. Grubbs, acting assistant-surgeon, from Washington, D. C., to the Department of California.

Philip F. Harvey, major and surgeon, U. S. A., leave of absence extended.

Edwin P. Hayward, acting assistant-surgeon, from the general hospital, Presidio of San Francisco, Cal., to duty with troops en route to China.

Joseph M. Heller, acting assistant-surgeon, from Washington, D. C., to duty at Fort Columbus, N. Y.

James W. Holland, acting assistant-surgeon, from Westfield, Mass., to the Department of California.

Thomas W. Jackson, acting assistant-surgeon, leave of absence granted.

Henry S. Kilbourne, major and surgeon, U. S. A., and medical superintendent, Army Transport Service, to proceed to Newport News, Va., to inspect the transport *Buford* and return to his proper station.

W. P. Lawrence, acting assistant-surgeon, leave of absence granted.

Wharton B. McLaughlin, acting assistant-surgeon, from the Division of Cuba to San Francisco, Cal., for duty with troops going on foreign service.

Lieven de Poorter, acting assistant-surgeon, leave of absence granted; relieved from duty in the Division of Cuba, to report at San Francisco, Cal., for duty with troops going on foreign service.

William M. Roberts, acting assistant-surgeon, from Baltimore, Md., to San Francisco, Cal., for duty with troops en route to the Philippine Islands.

W. D. Shelby, acting assistant-surgeon, leave of absence granted.

Thomas J. Strong, acting assistant-surgeon, from Burlington, Vt., to the Department of California.

William H. Tefft, acting assistant-surgeon, from Belmont, N. Y., to San Francisco, Cal., to duty with troops en route to the Philippine Islands.

Benjamin L. Ten Eyck, captain and assistant-surgeon, U. S. A., member of a board of medical officers at San Juan, P. R., to examine candidates for admission into the medical corps of the army.

Francis M. C. Usher, lieutenant and assistant-surgeon, U. S. A., from New York City, to San Francisco, Cal., for duty with troops en route to China.

Clement C. Whitcomb, acting assistant-surgeon, from Camden, Mo., to the Department of California.

Llewellyn P. Williamson, lieutenant and assistant-surgeon, U. S. A., from the Department of Western Cuba to San Francisco, Cal., for duty with troops en route to China.

William B. Winn, major and surgeon, Vols., from the Department of Western Cuba, to San Francisco, Cal., for duty with troops going on foreign service.

Alfred A. Woodhull, lieutenant-colonel, deputy surgeon-general, U. S. A., leave of absence granted.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ended July 28, 1900.

Orders issued by Commander-in Chief of the Asiatic Station

Surgeon A. C. H. Russell, detached from the *Newark* and ordered to the Naval Hospital, Yokohama, Japan, for treatment.

P. A. Surgeon R. M. Kennedy, detached from the *Yorktown* and ordered to the *Newark*.

Asst.-Surgeon A. G. Grunwell, detached from the *Brooklyn* and ordered to the *Monocacy*.

Surgeons M. F. Gates and G. Rothganger, commissioned surgeons from July 7, 1900.

P. A. Surgeon R. Spear, commissioned passed assistant-surgeon from June 22, 1900.

Asst.-Surgeon M. K. Elmer, commissioned assistant-surgeon, from July 18, 1900

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the seven days ending July 26, 1900.

Surgeon G. M. Magruder, granted leave of absence for fourteen days.

Surgeon C. P. Wertenbaker, to rejoin station at Wilmington, N. C., and upon being relieved by Surgeon T. P. Perry, proceed to New Orleans and assume command of the service, relieving Asst.-Surgeon J. W. Schereschewsky.

Asst.-Surgeon J. W. Schereschewsky, relieved from temporary charge of the service at New Orleans, La., and upon arrival of P. A. Surgeon C. P. Wertenbaker, directed to report to him for duty.

Acting Asst.-Surgeon Bailey, granted leave of absence for three days.

Acting Asst.-Surgeon A. W. Fisher, granted leave of absence for fifteen days during month of July.

Hospital Steward W. L. Stearns, granted leave of absence for twenty-three days from August 6.

Hospital Steward B. E. Holsendorf, granted leave of absence for thirty days.

PROMOTION

Junior Hospital Steward B. E. Holsendorf promoted and appointed Senior Hospital Steward.

Health Reports.

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended July 26, 1900.

SMALLPOX—UNITED STATES.

Alaska: Cap Nome, June 20-July 10, 5 cases on vessels.
District of Columbia: Washington, July 14-21, 1 case.
Indiana: Michigan City, July 14-21, one case.
Kansas: Wichita, July 14-21, 1 death.
Kentucky: Covington, July 9-15, 3 cases.
Louisiana: New Orleans, July 14-21, 8 cases, 2 deaths.
Massachusetts: Fall River, July 14-21, 2 cases; Lowell, July 14-21, 2 cases.
Minnesota: Minneapolis, June 30-July 14, 23 cases.
New Hampshire: Manchester, July 14-21, 3 cases.
Ohio: Cincinnati, July 6-20, 7 cases; Cleveland, July 14-21, 20 cases.
Utah: Salt Lake City, July 14-21, 4 cases.

SMALLPOX—FOREIGN AND INSULAR.

Austria: Prague, June 23-30, 10 cases.
Brazil: Rio de Janeiro, May 19-June 22, 18 deaths.
China: Hongkong, June 8-23, 1 case.
Egypt: Cairo, June 3-10, 5 deaths.
England: Liverpool, June 30-July 7, 3 cases, 2 deaths; London, June 30-July 7, 17 cases.
France: Lyons, June 23-30, 1 death; Paris, June 30-July 7, 4 deaths.
Gibraltar: July 1-8, 1 death.
Greece: Athens, July 30-July 7, 2 cases, 2 deaths.
India: Bombay, June 12-26, 12 deaths; Karachi, June 10-24, 8 cases, 5 deaths.
Mexico: Vera Cruz, July 7-14, 4 deaths.
Russia: Odessa, June 23-30, 5 cases; Warsaw, June 23-30, 7 deaths; St. Petersburg, June 23-30, 3 cases, 3 deaths; Siberia: Vladivostock, May 1-31, 9 cases.
Scotland: Glasgow, July 6-13, 68 cases, 2 deaths.
Straits Settlements: Singapore, May 26-June 16, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, May 18-June 2, 34 deaths.
Colombia: Cartagena, June 30-July 7, 9 cases, 7 deaths: Panama, July 9-16, 3 cases, 1 death.
Costa Rica: Port Limon, July 17, 1 suspicious case.
Cuba: Cienfuegos, July 21, 1 case among soldiers; Havana, July 4-11, 21 cases, 5 deaths: Sagua, July 5, 2 cases.
Mexico: Vera Cruz, July 7-14, 4 deaths.

CHOLERA.

India: Bombay: June 12-26, 179 deaths; Madras, June 2-22, 2 deaths.
Japan: Osaka, June 23-30, 1 case.

PLAGUE—FOREIGN AND INSULAR.

Arabia: Aden, June 23-30, 1 case, 1 death.
China: Hongkong, June 2-25, 297 cases, 185 deaths.
India: Bombay, June 12-26, 185 deaths; Karachi, June 10-17, 17 cases, 16 deaths.
Japan: Osaka, June 19-30, 3 cases; Sakai, June 19-30, 1 case; Shidzuoka Ken, June 19-31, 1 case; Tamsui, June 1-14, 76 cases, 65 deaths.
Korea: Seoul, June 8-16, endemic.
Philippines: Manila, May 26-June 7, 4 cases.

Change of Address.

Dr. G. A. Bachman, from Burnips Corners, to Hopkins Station, Mich.
Dr. J. C. Blume, from Benton Harbor, Mich., to Mishawaka, Ind.
Dr. R. W. Bemis, from 2603 N. Fifth St., to 2512 N. Fifth St., Philadelphia, Pa.
Dr. C. W. Baker, from Trempealeau, Wis., to Blanchester, Ohio.
Dr. S. B. Bennett, from Galesburg, to Canton, Ill.
Dr. J. R. Bradford, from Boulder, Colo., to Sanitarium St., Battle Creek, Mich.
Dr. J. M. Byne, from Waynesboro, to Augusta, Ga.
Dr. Alice Bennett, from Huntsville, Ala., to Wrentham, Mass.
Dr. B. L. Clary, from Sun Prairie, to Edgerton, Wis.
Dr. E. O. Church, from 591 W. Congress St., Chicago, to Watertown, S. D.
Dr. W. B. Coakley, from Virginia Hotel, to 297 N. State St., Chicago.
Dr. W. S. Carnes, from 22 Third St. N. E., Washington, D. C., to Box 47, Pierce P. O., Ohio.
Dr. J. A. Ascher, from Cherry Creek, to Lovelocks, Nev.
Dr. J. M. Asher, from 1527 Girard St., to University Hospital, Philadelphia, Pa.
Dr. W. A. Dickey, from 227 Twelfth St., to 1703 Jefferson St., Toledo, Ohio.
Dr. A. M. Earel, from Alma, to Lincoln, Neb.
Dr. W. W. Fox, from Atlantic City, N. J., to Orthopedic Hospital, Philadelphia, Pa.
Dr. E. S. Goodhue, from Kailua, Hawaii, to Honolulu, Oahu, H. I.
Dr. N. P. Grensel, from 42 Butternut St., to 440 Lincoln Ave., Detroit, Mich.
Dr. B. P. Goode, from 2012 Baymiller st., to 1812 Baymiller St., Cincinnati, Ohio.
Dr. F. E. Gibbons, from Mattoon to Eagle River, Wis.
Dr. I. B. Hayes, from Northampton to Florence, Mass.
Dr. C. P. Hayden, from Woburn, Mass., to St. Agnes Hospital, Raleigh, N. C.
Dr. W. A. Hickman, from 1409 Wood Ave., to 1319 N. Nevada Ave., Colorado, Colo.
Dr. C. C. Hummell, from Iowa Falls to Dike, Iowa.
Dr. J. A. Hart, from Colorado Springs, Colo., to Geneva, N. Y.
Dr. C. P. Judkins, from Seventeenth and Race Sts. to Rose Hill Park, Station I, Cincinnati, Ohio.
Dr. W. Johnson, from 1940 Fifteenth St. to 1414 U St. N. W., Washington, D. C.
Dr. A. C. Karsten, from Haricon to 584 Seventh St., Milwaukee, Wis.
Dr. A. E. Klein, from Washington, D. C., to Elmhurst, L. I.
Dr. I. P. Lyon, from Buffalo to Camp Wilmurt, Tarnesda, N. Y.
Dr. E. E. Levers, from Red Cannon to Almy, Wyo.
Dr. W. T. Liggett, from Colorado Springs to Cripple Creek, Colo.
Dr. C. W. Leonard, from Dotyville to St. Cloud, Wis.
Dr. H. F. Langhorst, from Aurora to 58 Evergreen Ave., Chicago.
Dr. J. A. Miller, from Beddow to Farmington, Mich.
Dr. H. G. Patillo, from Charlottesville, Va., to Milton, Ala.
Dr. L. E. Powell, from English American Building, Atlanta, to Lanier House, Macon, Ga.
Dr. W. M. Phelps, from Chicago, Ill., to Lincoln, Kan.
Dr. B. J. Read, from Charlottsville, Va. to Blackwell's Island, care M. T. S., New York.
Dr. H. Randles, from 648 Minnesota Ave. to White City, Kan.
Dr. J. L. Stewart, from Loomis, Neb., to San Pedro Mex.
Dr. H. T. Summersgill, from Wilmington, N. C., to University of Virginia Charlottsville, Va.
Dr. S. Smith, from New York to Skaneateles, N. Y.
Dr. S. M. B. Smith, from Fort Atkinson to 315 Third St., Wausau, Wis.
Dr. J. C. Steven, from Three Springs to Huntington, Pa.
Dr. A. J. Sibley, from Creedmore to S. E. Hudson, Austin, Tex.
Dr. L. Tibbitte, from Rockport to L. Tibbets, Rockport, Ill.
Dr. J. S. Troutman, from Fourth and Broad Sts. to 1711 Meyers St., Paducah, Ky.
Dr. L. C. Vincent, from 101 W. Fifty-second St. to 151 W. Eighty-fourth St., New York City.
Dr. R. T. Van Pelt, from Wabash and Twenty-second Sts. to 167 Dearborn St., Chicago.
Dr. H. W. Wellner, from 183 E. 117th St. to 10 E. 115th St., New York City.
Dr. H. Wilson, from Pittsburg to Somerset, Pa.
Dr. J. A. Williamson, from Mineral Wells to Dallas, Tex.
Dr. C. Vander Veen, from 331 Grandville St. to 77 Canal St., Grand Rapids, Mich.

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